THE EFFECTS OF L1 AND L2 GROUP DISCUSSIONS ON L2 READING COMPREHENSION

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ABSTRACT

The role of a learner’s first language (L1) within the second language (L2) learning environment has long been an interesting topic of debate. Traditionally, the use of the L1 has been considered negative and without benefit to the learner, with Direct Methods of L2 teaching avoiding its use in the classroom altogether (Rodgers, 2014). The advent of Communicative Language Teaching (CLT) in the mid-20th century saw a shift from strict L1 avoidance to a position that ignored its existence altogether (Rodgers, 2014). However, in recent years, researchers have begun to acknowledge that, because learners access and utilise their L1 throughout the L2 learning process (Cook, 1992), there is no logical reason why learners should avoid its use (Cook, 2001).

This realisation, combined with acceptance of the beneficial effects of collaborative group discussions in language learning and reading comprehension (Evans, 1995), and investigations of L2 readers’ code-switching in written recalls (Sweetnam Evans and Lee, 2013), suggests that L1 group discussions would benefit L2 readers (Sweetnam Evans, 2013).

This thesis reports on a study that compared the effects of L1 and L2 group discussions on L2 reading comprehension. The study was carried out with fifteen native Japanese-speaking undergraduates at the University of Otago with similar levels of English competence. Three groups of participants read the same four texts before being asked to produce written recalls and responses. Group 1 responded in writing individually without discussion. Group 2 discussed the texts in their L2 (English) and responded in writing individually. Group 3 discussed the texts in their L1 (Japanese) and responded in writing individually.

The findings show that, overall, the discussions of groups 2 and 3 had a positive effect on the learners’ L2 reading comprehension compared to the responses and recalls of participants in group 1. Participants in group 3 (who discussed the texts in their L1), used more higher order processing and reading strategies than participants in group 2, and exhibited greater comprehension of the texts overall, suggesting the benefits of L1 group discussions on L2 reading comprehension.
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<tr>
<td>BICS</td>
<td>Basic Interpersonal Communication Skills</td>
</tr>
<tr>
<td>CLT</td>
<td>Communicative Language Teaching</td>
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<tr>
<td>EFL</td>
<td>English as a Foreign Language</td>
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<tr>
<td>ESL</td>
<td>English as a Second Language</td>
</tr>
<tr>
<td>IELTS</td>
<td>International English Language Testing System</td>
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<tr>
<td>L1</td>
<td>First Language</td>
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<td>L2</td>
<td>Second Language</td>
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<td>OT</td>
<td>Original Text</td>
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CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this study, I explore the effects a learner’s first language (L1) has on second language (L2) reading comprehension, particularly the effects of L1 group discussions on the reading comprehension of differing L2 genres. The study also aims to investigate L2 learners’ personal opinions towards the use of the L1 in their own L2 learning process, which may be used as a basis by teachers for L2 instructional purposes. The data for the present study was collected via written textual recalls and responses, recordings of verbal group discussions, and participant questionnaires.

1.1 Background to the study

Reading is an active, ongoing process in which the reader simultaneously extracts and constructs meaning “through interaction and involvement” with a text (RAND Reading Study Group, 2002, p. x). Reading comprehension occurs “when the reader extracts and integrates various information from the text and combines it with what is already known” (Koda, 2005, p. 4). Readers connect the information they take from the text with their own background knowledge by assimilating what they read onto memory structures (or memory nodes, see Graesser & Clark, 1985) as they seek to construct a mental and dynamic representation of the text (Anderson & Pearson, 1984; Madden & Zwaan, 2004; Teng, 2009). These mental representations are continuously updated both during reading and after reading has stopped, and are the foundation on which readers base their interpretations and comprehend the text overall. Readers also rely on linguistic and background knowledge to form preliminary expectations about a text that are “confirmed, rejected or refined” (Goodman, 1970, p. 260) throughout the reading process as they aim to build a coherent, mental representation of the information being comprehended (Kintsch, 1974, 1977; Kintsch & van Dijk, 1978; Garrod & Sansford, 1990; Gernsbacher, 1990; Mackay and Mountford, 1979).

Because readers construct meaning by integrating their existing knowledge with incoming textual information (Kintsch, 1998), it is important that skilled readers have efficient interaction between their background knowledge and the information from the incoming text if they are to create meaning. Studies have also suggested that the genre of a text may play a role in the way in which readers interpret and comprehend a given text, including the type of prediction strategies that learners choose to employ at the beginning of the reading process to construct initial inferences.
Collaboration through activities such as group discussions provides learners with an optimal knowledge-building environment (Bereiter & Scardamalia, 2003) by encouraging learners’ active involvement in the learning process (Farzaneh & Nejadansari, 2014). However, as Seng & Hashim (2006) state, “not much is known with regards to the extent of L1 use and the possible reasons for its use in small reading groups in the L2 classroom” (pp.29-30).

1.2 Aims of the study

Although it is still “unclear precisely what role the native language plays in L2 reading comprehension” (Kern, 1994, p.441), the proposed positive effects of involving a learner’s L1 in the L2 classroom, combined with the benefits of L1 group discussions (Sweetnam Evans, 2013), suggests that there is both a need and a significance in studying the combined effects of the two on L2 learners L1 reading comprehension.

The purpose of the present study is thus to investigate this gap in the knowledge regarding the effects a learner’s L1 has on L2 reading comprehension, particularly the effects of L1 group discussions on the reading comprehension of differing L2 genres. The study also aims to investigate L2 learners’ personal opinions towards the use of the L1 in their own L2 learning process. The following research questions were investigated:

1.) What are the effects of L1 group discussions in facilitating L2 reading comprehension?
2.) What effects do L1 discussions have on the comprehension of various L2 text genres?
3.) What are the perspectives of L2 learners on the use of the L1 in their own L2 learning process?

These questions were investigated using a qualitative approach. Written recalls were collected from participants following the reading and discussion of each of the four texts. Learners were asked to recall what they remembered of the texts as well as to provide any comments or opinions they had regarding the texts overall. Verbal discussions were recorded, and questionnaires were collected on participant opinions of the use of the L1 in their L2 learning process.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

In this chapter I present the extensive literature related to L1 reading and L2 reading comprehension, and the L1/L2 relationship in L2 reading and collaborative groups. First, the definitions of reading and reading comprehension are outlined, followed by details of the way in which readers process and understand texts. Relevant reading theories and frameworks are also presented, followed by the role of the L1 in language learning including a historical timeline of the attitudes towards the L1 in the L2 learning process. Next, I present the ways in which reading in the L2 differs from reading in the L1, and consider reading as a bilingual process involving both the L1 and the L2. Phenomena in which the L1 can be of use to the L2 learner are then outlined, including details into how the L1 can be used in L2 reading, and collaborative groups.

2.1 Reading

Reading is often defined in simple statements such as “receiving and interpreting information encoded in language form via the medium of print” (Urquhart & Weir, 1998, p. 22). However, such statements do not capture the full complexity and various aspects involved in the concept of reading. Grabe (2009) outlines just some of the reading styles that learners frequently make use of when reading texts, including skimming, reading to learn, reading to integrate information, reading to evaluate, critique and use, and reading for general comprehension.

There are many views regarding whether reading should be considered a process or a product. Alderson & Urquhart (1984) claim that it is possible for reading to be both in that a product view relates to what the reader extracts from the text, whereas a process view investigates how the reader develops a particular interpretation. Goodman (1970) states that

… reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader’s expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected or refined as reading progresses (p. 260).

This definition claims that reading is an active, ongoing process. Mackay and Mountford (1979) provide three comments about the reading process based on Goodman’s early definition. Firstly, they say that readers undergo a sampling process in which they rely on both linguistic and
background knowledge to form a preliminary expectation about the text before selecting the simplest, most productive cues necessary to confirm or reject this assumption. Secondly, in much the same manner, reading must be viewed as a two-step operation involving process-comprehending, and product-comprehension. Finally they claim that reading involves an interaction between thought and language, in that readers must utilise their background knowledge in combination with their ability to make linguistic predictions to develop expectations and inferences based on the text. In other words, skilled readers must have efficient interaction between their linguistic and background knowledge, and the information they extract from the text. Wallace (1992) confirms the importance of reader-text interaction, and claims that both L1 and L2 reading research has suggested that texts are not self-contained products, but instead, it is the reader’s job to actively build the meaning and make their own inferences based on such information. As Sweetnam Evans (2011) mentions, “an essential principle in reading theory is that meaning is not something that is retrievable from a text, but is instead a feature of interaction between text and reader” (p. 54). Texts do not contain meaning, but rather, they have the potential for meaning to be realised through the interaction between the reader and the text. Meaning is therefore created through the process of reading, with the reader drawing on both existing linguistic and background knowledge, and the information provided by the text itself. Kintsch’s construction-integration model confirms this, and he points out (1998) that readers construct meaning whilst integrating their existing knowledge with incoming textual information.

2.2 Reading comprehension

The RAND Reading Study Group (2002) defines reading comprehension as

... the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. We use the words extracting and constructing to emphasise both the importance and the insufficiency of the text as a determinant of reading comprehension (p. x).

The overall goal of reading comprehension is to build a coherent, mental representation or ‘structure’ of the information being comprehended (Kintsch, 1974, 1977; Kintsch & van Dijk, 1978; Garrod & Sansford, 1990; Gernsbacher, 1990). Kintsch (1988) states that

... comprehension involves constructing a representation of a discourse upon which various computations can be performed, the outcomes of which are commonly taken as evidence for comprehension. Thus, after comprehending a text, one might reasonably expect to be able to
answer questions about it, recall or summarise it, verify statements about it, paraphrase it, and so on (p. 163).

Palincsar & Brown (1984) claim there are six underlying concepts involved in the reading comprehension process:

1. understanding the purposes of reading, both explicit and implicit;
2. activating relevant back-ground knowledge;
3. allocating attention so that concentration can be focused on the major content at the expense of trivia;
4. critical evaluation of content for internal consistency, and compatibility with prior knowledge and common sense;
5. monitoring on going activities to see if comprehension is occurring, by engaging in such activities as periodic review and self-interrogation;
6. drawing and testing inferences of many kinds, including interpretations, predictions, and conclusions (p.120).

They further outline the four most fundamental ‘concrete’ activities involved in reading comprehension that embody the six above-mentioned skills: summarising for self-review, questioning, clarifying, and predicting. In short, both summarising a text and questioning it require students to focus their attention on major content (3) and check whether they have understood it (5). By clarifying, learners critically evaluate as they read (4). Making predictions regarding future textual content allows them to make and test initial inferences (6). The activation of relevant background knowledge (2) is present within all four of these activities (Palincsar & Brown, 1984).

The overall process of reading comprehension occurs “when the reader extracts and integrates various information from the text and combines it with what is already known” (Koda, 2005, p. 4). It is viewed as the process of interpreting new information and assimilating this information into memory structures (or nodes) to construct mental and dynamic representations of a text (Anderson & Pearson, 1984; Madden & Zwaan, 2004; Teng, 2009). These mental texts are continuously updated both during reading and after reading has stopped, and are the basis on which readers form their interpretations. Likewise, Johnson-Laird (1983) states that language comprehension involves building what he calls a “mental model [that] goes beyond the literal meaning of the discourse because it embodies inferences, instantiations, and references” (p. 245). Constructing mental models of a given situation described in a text is the fundamental basis of language comprehension (Bower & Morrow, 1990).
The Tri-Partite Theory of Text Representation offered by van Dijk and Kintsch (1983) suggests that a mental text model has three predominant levels of representation: the surface code (structure), the textbase, and the situational model (van Dijk & Kintsch, 1983; Radvansky & Zwaan, 1998; Zwaan, Langston, & Grasser, 1995). Firstly, the ‘surface structure’, also known as the ‘surface code’, entails the exact wording and syntax of a given text. Grasser, Millis & Zwaan (1997) state that “comprehenders normally retain the surface code of only the most recent clause unless aspects of this surface code have important repercussions on meaning” (p. 5). Some research (e.g. Hunt & Vipond, 1986) has shown that more of the surface code is recalled after literary reading than after other types of reading.

Secondly, the ‘textbase’ is essentially the overall, general meaning of the text at hand. It can be broken down into simple, yet meaningful, elements of the text, which Kintsch (1974, 1977) refers to as propositions. In order for a reader to successfully comprehend a text, these propositions must be organised into a coherent whole where a number of inferences are needed to establish local text coherence (Grasser et. al, 1997). According to Kintsch’s (1988) Construction-Integration Model, the following steps are involved in constructing a textbase:

… (a) forming the concepts and propositions directly corresponding to the linguistic input; (b) elaborating each of these elements by selecting a small number of its most closely associated neighbours from the general knowledge net; (c) inferring certain additional propositions; and (d) assigning connection strengths to all pairs of elements that have been created (Kintsch, 1988. p. 166).

Finally, reading comprehension (particularly of narrative texts) also involves having the reader reconstruct the situations and actions of the text, a process known as building a ‘situation model’ (van Dijk and Kintsch, 1983), which is the “cognitive representation of the events, actions, persons, and in general, the situation that a text is about” (van Dijk and Kintsch, 1983. pp. 11-12). Similarly, Grasser et al. (1997) offer the following explanation:

[t]he situation model is the content or the microworld that the text is about. The situation model for a story refers to the people, spatial setting, actions, and events in the mental microworld. This microworld is constructed inferentially through interactions between the explicit text and background world knowledge (p. 5).

Situation models are considered particularly necessary for readers to construct inferences and successfully comprehend texts (Glenberg, Meyer, & Lindem, 1987; van Dijk & Kintsch, 1983;
Zwaan & Radvansky, 1998). If a strong situation model is not constructed, a narrative text will not be fully comprehended or recalled.

2.2.1 Comprehension assessment

Assessing an individual’s level of reading comprehension is a complicated and intricate process. In assessing reading comprehension, it is important that readers go beyond merely recalling directly from the text. Mohamad (1999) claims that there are three main levels of reading comprehension: literal, interpretive and critical comprehension. Literal comprehension, as the name suggests, is simply comprehension at the surface level and involves reading for literal meanings, e.g: stated ideas (Karlin, 1971). At the interpretative comprehension level, readers go beyond what is merely said, and begin to analyse the text for deeper meanings and ideas, linking concepts, and developing inferences etc. (Potts, 1976). Critical reading comprehension is the highest level of comprehension at which textual information is evaluated by the reader for overall meaning, e.g.: differentiating between concepts, recognising and taking the side of an argument, judging the accuracy of textual information etc. (Mohamad, 1999). As Mohamad (1999) indicates, complete mastery at one level of comprehension is not essential for comprehension to occur at another. Skilled readers understand the main idea of the text from which they can develop their own inferences and interpretations based on their mental representations that are formed by integrating their background knowledge with the incoming textual information. Thus, it is important for readers to be aware that there is more to reading comprehension than just the basic skill of recalling textual details, and students should be encouraged to go beyond the literal comprehension level.

2.2.2 Background knowledge in reading comprehension

One particularly important element for readers in building a mental representation of a text, especially in terms of the textbase and situational model, is background knowledge, or prior knowledge. The information that readers already have on a given topic and are able to draw upon throughout the comprehension process is known as their background knowledge. This knowledge may include factors such as reader vocabulary (Anderson & Freebody, 1981), their knowledge of and ability to use these comprehension monitoring strategies (Baker & Anderson, 1982), and what they know about the world (Anderson & Pearson, 1984; Anderson, Reynolds, Schallert & Goetz, 1977; Bransford & Johnson, 1972), including sociocultural, textual, genre knowledge, and knowledge of other conventions. Background knowledge also consists of assimilated direct life experiences, and assimilated verbal experiences and encounters (Wallace, 1992).
Much research has gone into the relationship between background knowledge and student reading achievement (Nagy, Anderson, & Herman, 1987; Bloom, 1976; Dochy, Segers, & Buehl, 1999; Alexander, Kulikowich, & Schulze, 1994; Schiefele & Krapp, 1996; Boulanger, 1981), with results suggesting a positive correlation between the two. Brown & Palincsar (1984) claim that comprehension is influenced by the extent of overlap between the reader’s prior knowledge and the content of the text. They also refer to the fact that background knowledge can be extended in collaborative discussions between groups of learners talking about aspects of texts they have read.

For background knowledge to be beneficial to the reader, the appropriate information must be present throughout the ongoing process of text comprehension (Bransford & Johnson, 1972; Schank, 1978). Kintsch (1988) states that

… our conceptions about knowledge use in discourse comprehension are dominated by the notions of top-down effects and expectation-driven processing. Knowledge provides part of the context within which a discourse is interpreted (p. 163).

In other words, background knowledge is required for readers to develop mental representations of a text and to interpret and infer meaning. Readers will continually activate background knowledge from their memory when required as part of the comprehension process (Lucas, Tanenhaus, & Carlson, 1990; van den Broek, Rohleder, & Narvaez, 1996). Background knowledge “can become readily available during moment-by-moment reading processes” (van den Broek, Rapp, & Kendeou, 2005, p. 300), indicating that readers may activate their background knowledge at any time throughout the reading process, and before or after, in a number of possible ways (Fisher & Frey, 2009). Background knowledge may be activated through both direct experiences and indirect experiences (Marzano, 2004). Direct experiences for learners include all personal experiences, field trips, guest speakers, experiments, and interactions etc., whereas indirect experiences cover aspects such as teacher modelling or extensive reading to build general knowledge boundaries. Background knowledge may also be activated and built through such means as class brainstorming, drawings and posters, flow charts, check lists, movies, interviews and surveys, group discussions, or any other activity that allows students to engage with the content so they can make connections with the text during the comprehension process.

Hannon & Daneman (2001) propose four primary processes in reading comprehension in which background knowledge plays an important role: 1.) accessing relevant background knowledge; 2.) integrating background knowledge with information from the text; 3.) making inferences based on
information in the text; and 4.) recalling newly-learned text material. Once the learner has undergone the first three of these processes and a strong mental text has been constructed, the text is said to be comprehended, overall meaning is constructed, and the text can be remembered and recalled. Brown & Palincsar (1984) reinforce the point that comprehension is influenced by the extent of overlap between the reader’s prior knowledge and the content of the text, namely, the extent to which a reader’s background knowledge relates to a given text.

2.2.3 Text genre

The importance of text genre as a level of mental representation in reading comprehension has been identified by discourse analysts (e.g. Biber 1988). Text genre includes categories and subcategories such as narration, exposition, description, persuasion, jokes, etc., each containing very different structural components, features, and pragmatic ground rules (Grasser et al., 1997). A study carried out by Afflerbach (1990) found that the genre of a text played a significant role in whether or not readers employed prediction strategies in the construction of meaning for a text. Other research involving the material appropriate processing framework (see Einstein, McDaniel, Owen, & Coté, 1990) suggests that readers process, and subsequently comprehend, texts differently according to their knowledge of, and expectations for, specific text genres (Geiger & Millis, 2004; Zwaan, 1994). Readers have a tendency to focus on conceptual relationships in narratives, and individual facts in expository texts. Zwaan & Rapp (2006) state that

… knowledge or expectations with respect to genre can guide the cognitive activities that underlie comprehension processes as well as the ways in which readers represent discourse information in memory (p. 729).

Narratives are typically defined by a sequence of events in which a protagonist overcomes a number of obstacles while attempting to accomplish a goal (Mandler & Johnson, 1977). This basic structure is “in many cases, so familiar that readers may have expectations for how the narrative will unfold” (Zwaan & Rapp, 2006, p. 728), which they utilise in the comprehension of the text as a whole. On the other hand, expository texts provide readers with specific information on a given topic. Zwaan & Rapp (2006) point out that:

… knowledge of the expository genre can provide readers with strategies for encoding the material. […] readers can use strategies to decide which information may be critical for adequate comprehension, and hence focus their attention on that material (for example, ignoring or focusing on method sections in articles) (p. 728).
Research investigating the expectations readers have for different genres shows that readers interpret the points of texts and make inferences based on the author’s stylistic choices if they are reading texts as literature, and pay attention to information and details when reading non-fiction (Sweetnam Evans, 2011) (also see Mar, 2004; Zwaan, 1993). Vipond & Hunt (1984, 1987) identify three orientations that readers hold towards texts; point-driven, information-driven, and story-driven reading, each associated with its own cognitive strategies. In point-driven reading, “the understander reads with the expectation that the text will enable the construction of a valid, pragmatic point” (Vipond & Hunt, 1984, p. 266). On the other hand, in information-driven reading “the reader's motive is primarily to carry away information from a text” (Vipond & Hunt, 1987, p. 134) and to learn from available and relevant content. Story-driven reading is considered the middle ground between point-driven and information-driven reading, and occurs when the reader is “interested in living through a vicarious experience, immersing themselves in a story-world of characters and events” (Vipond & Hunt, 1987, p. 134). Vipond and Hunt (1984) offer the following definition:

> [t]he term 'story-driven' is based on Chatman's (1978) distinction between story' and 'discourse' in narrative. Accordingly, story-driven readings tend to emphasise plot, character, and event, and to neglect the 'discourse' by which the events and characters are presented. Someone reading in a story-driven way will be looking for a 'good read' - interesting, affectively-arousing events (Morgan and Seilner 1980), rounded characters, and the like - but will not anticipate that the narrative will, in the way conversational narratives are expected to, invite and assist the construction of a valid 'point.' By the same token, a person reading in a story-driven way would not find it necessary to construct a model of the author: the story seems to exist, and can be enjoyed, quite independently of any implied author (p. 269).

It is important to note that these three models of reading - that is, point, information, and story-driven - are not characteristics of texts itself, nor are they characteristics of whole readings. They are strategies in which the reader may engage with a text, and a skilled reader will be able to make use of, and combine, a number of these reading strategies in different texts to aid the overall reading comprehension process (Vipond & Hunt, 1984).

Skilled readers also will continuously monitor and evaluate their own reading comprehension by re-reading, questioning, and concentrating on coherence and by developing mental representations of
textual details and information (Sweetnam Evans, 2011). When readers encounter a problem in their own comprehension they employ a number of cognitive processes (Kolić-Vehovec & Bajšanski, 2007) such as activating background knowledge, revising initial inferences and interpretations, mapping relevant information from the text, and suppressing irrelevant information (Frey, 2005; Gernsbacher & Faust, 1991; Sweetnam Evans, 2011). These strategies become part of the overall process that learners will go through in reading comprehension.

### 2.2.4 Reader emotions

Emotions are an important element in the building of a situation model and overall comprehension of a narrative text. Dijkstra, Zwaan, Graesser, & Magliano (1995) refer to two types of emotions that readers experience - character and reader emotions. Character emotions are those occurring within the fictional world of a text, whereas reader emotions occur outside of that. They state that

[c]haracter emotions occur when a character in a story allegedly experiences emotional arousal in a specific situation, particularly in the case of goal success or goal failure. Character emotions also can be the result of emotions directed at another character, for instance when one character is angry with another character (p. 140).

Character emotions may be stated either explicitly in the text itself, or constructed by readers through inferences of the character's emotional response (Dijkstra, et al., 1995). On the other hand, there are different types of reader emotions which Kneepkens & Zwaan (1995) claim consist of two types of interrelated emotions: fiction emotions (F-emotions) and artefact emotions (A-emotions). “F-emotions pertain to the fictional world. A-emotions are emotions that relate to the artefact” (p. 130). For example, when a reader experiences sadness as a result of events within a text (F-emotions) they may convert this to appreciation of the author’s ability to create a convincingly depressive mood (A-emotions).

A-emotions are triggered by the “structural, stylistic, or compositional” surface structure of the text (Dijkstra, et al., 1995, p. 141), and are thought to be related to the experiences readers have with textual features. Kneepkens & Zwaan (1995) state that “A-emotions such as enjoying the style, the meter, etc. will lead to a better representation of the surface structure” (p. 131), and will be of importance to the reader after the reading process has finished as a reminder of the surface text.
F-emotions are triggered by readers’ willingness to become immersed within the events of a text (expectations, personal interests, etc.) as well as their willingness to relate to the characters empathetically (Kneepkens & Zwaan, 1995). F-emotions occur at the level of the situation model and are “linked to the contents of the story, or more specifically, to the protagonists and the course of the narrative events” (p. 132). It is generally assumed that F-emotions contribute to the overall construction of a reader’s situation model because they

… indicate what is important to the reader, they direct the perspective of the reader and, with that, the representation of the story being constructed as well as the construction of the schema as a whole (Kneepkens & Zwaan, 1995, p. 132).

Miall & Kuiken (2002) outline the timing in which such emotions may occur in literary reading and narrative comprehension, stating that

… feelings such as enjoyment, pleasure, or the satisfaction of reading are reactions to an already interpreted text. […] Second, feelings such as empathy or sympathy with an author, narrator, or narrative figure are involved in the interpretive processes by which a representation of the fictional world is developed and engaged. […] Third, feelings of fascination, interest, or intrigue are an initial moment in readers’ response to the formal components of literary texts (narrative, stylistic, or generic) (p. 221).

When reading narratives, readers also generate participatory responses (P-responses) that occur through the reader’s involvement with the text (Allbritton & Gerrig, 1991). P-responses are readers’ encoded preferences and evaluations of a text (Gerrig, 2013), and may consist of a reader’s emotions, thoughts and opinions on characters, preferences for the outcomes of events, or reflections on the implications of the story as a whole. P-responses are part of the overall comprehension process, and developing these mental preferences can affect the way in which readers comprehend a given story. Zwaan (1999) claims that reader preferences for the outcome of a narrative “interfere with the verification of previously known information about the actual outcome of the story” (p. 17). Gerrig (2013) confirms that this is how P-responses have an effect on the comprehender’s outlook, stating that:

[be]cause readers and viewers function as participants in narrative worlds, they also experience the vicarious influence of characters’ outcomes. Thus, readers’ beliefs, attitudes, and behaviours may change as they observe characters’ fates (p. 2).
In using their knowledge about the text to build preferences for the narrative’s outcome (Allbritton & Gerrig, 1991), certain narrative features can have significant effects on the way in which readers view a text, including their “thoughts, reflections, and feelings” (Miall & Kuiken, 2002, p. 238). This has a consequential effect of the comprehension of the text as a whole.

P-responses may also be affected by the literary genre of a text. “Text characteristics influence the attitude or the intentions with which the reader regards the text, and as a result, the emotions a reader experiences” (Kneepkens & Zwaan, 1995, p. 134). For example, in a narrative romance story, readers anticipate or might prefer a happy ending and develop P-responses as they read in a story-driven manner towards the anticipated ending. As a result, learners may comprehend the text in different ways depending on their background knowledge and opinions etc.

2.3 Reading frameworks and theories

There are generally considered to be three main cognitive processes involved in reading: bottom-up processing, top-down processing, and metacognitive processing (Barnett, 1989; Grabe, 1988, 1991; Pardede, 2013; Samuels & Kamil, 1984; Silberstein, 1987; Swaffar, Arens, & Byner, 1991). The most traditional and oldest of reading theories focus almost exclusively on bottom-up (text-based) processing. Bottom-up processing is primarily concerned with textual decoding (Grabe, 1991) and is stimulated in readers by incoming textual data (Carrell & Eistherhold, 1983). A bottom-up view of reading suggests that readers start with the smaller, finer details of a text and build upwards to develop a full representation. However, Pardede (2013) states that

[t]his model of reading has almost always been under attack as being insufficient and defective for the main reason that it relies on the formal features of the language, mainly words and structure [(sect. the traditional bottom-up view, para. 6)].

Cognitive top-down views of reading were introduced in the 1960s. Top-down processing focuses on the reader’s interpretation and background knowledge of the text (Grabe, 1991) and the way in which readers can create meaning from a text by relating it to what they already know. In such a view of reading, readers form perceptions of the overall textual concepts based on their background knowledge and then work down to the finer details. Top-down processing is said to have been a revolution of the way in which students were taught to read by their teachers (Smith, 1994), with background knowledge playing an extremely important role in the creation of meaning (Tierney and Pearson, 1981) as well as the overall comprehension process.
In top-down processing, reading becomes more than simply extracting meaning from a text; it becomes a process in which readers actively connect textual information with their own background knowledge to predict the meaning of language they will read, to develop expectations about what they will read, and to confirm or reject these predictions as they progress through the text (Pardede, 2013). Goodman’s (1968) psycholinguistic framework coheres to this theory, as he claims that, in order to achieve comprehension, readers must actively engage in relating both their personal experience and knowledge (psychological) with words of a text (linguistic).

Coady (1979) further added to Goodman’s theory and suggested that reading in the L2 involves three interactive elements: background knowledge, conceptual abilities, and process strategies (such as word/syllable identification, lexical comprehension etc.), and that when these three elements work together, the active result is comprehension. In recent years, researchers have argued that effective readers must make use of both top-down (conceptually driven) and bottom-up (text feature driven) processes at all levels of reading simultaneously (Carrell, 1988, 1989; Eskey & Grabe, 1988; Grabe, 1991; Rayner & Pollatsek, 1989; Rumelhart 1980; Samuels & Kamil, 1984). The reason for this, as Klapper (1992) states, is that “the data which fill out schemata come through bottom-up processing, while top-down processing helps the data to be assimilated” (p. 29).

The late eighties onwards in particular saw a dramatic change in L2 reading theories with many recognising the interactive nature of reading (Bernhardt, 1990, 1991a, 1992b; Carrell, Devine & Esky, 1988; Grabe, 1991; Lee, 1990; Samuels & Kamil, 1984; Swaffar, 1988; Swaffar, Arens, & Byner, 1991). Grabe (1991) claims that the term *interactive* may refer to one of two conceptions: 1.) the interaction between processes (text-driven and reader-driven); or 2.) the interaction between the reader and the text in terms of developing a textual representation based on background knowledge and the information extracted from the text. He also refers to the three elements of interaction involved in reading: 1) the interaction between the reader's background knowledge and incoming textual information; 2) the interaction of the reader with textual elements within a given text that defines text types and functions etc., and 3) the interaction of both a reader’s bottom-up and top-down processing skills.

Effective reading also involves comprehension monitoring. Pressley & Afflerbach (1995) claim that a combination of top-down and bottom-up processes alone is not enough, and that
mature reading involves active evaluation of understanding as reading occurs, with corrective actions initiated (e.g., re-reading, slower reading) when miscomprehension is sensed (p. 87).

This focus on comprehension monitoring favours Baker and Brown’s (1984) metacognitive theory. The metacognitive view is concerned with what one is doing while reading, and the control that one is able to exert throughout one’s own comprehension process (Vaezi, 2006). For example, the metacognitive view states that learners are aware of the cognitive processes (top-down and bottom-up processing skills etc.) which they are engaging. Block (1992) states that, whilst reading, strategic readers will attempt to identify the purpose and type of the text beforehand, consider general character and textual features, anticipate the author’s overall purpose for writing, decide whether to scan the text or read in detail, and make continuous predictions about the text based on both incoming information and prior background knowledge.

One particular theory popular in the last quarter of the twentieth-century concerning the role of background knowledge in reading comprehension is that of schema theory. Schema theory was built on the premise that text processing principally involves the mapping of new information onto preexisting and schematically-organised background knowledge (Mandler & Johnson, 1977; Kintsch & Grenne, 1978). Grabe (1991) states that “schema theory is a theoretical metaphor for the reader’s prior knowledge” (p. 384). The theory is based on the belief that all comprehension involves one's wider knowledge outside of the text (Anderson & Urquhart, 1984), and that readers develop a coherent interpretation of a text through the interactive process of "combining textual information with the information a reader brings to a text" (Grabe, 1988, p. 56).

Gernsbacher’s (1990) Structure Building Framework centres around the concept in which learners lay a foundation or an ‘anchor’ to which information can be attached or ‘mapped’ onto when such incoming information coheres or relates to previous information (Garrod & Sanford, 1990; Gernsbacher & Foertsch, 1999). The basic building blocks of these mental structures are referred to as memory nodes (Graesser & Clark, 1985; Gernsbacher & Foertsch, 1999; van Dijk & Kintsch, 1983). Memory nodes are activated by incoming stimuli that form the foundation of mental structures. Once a foundation has been laid, subsequent information can be mapped on too - a concept known as a developing structure. The more that incoming information coheres with the previously mapped information, the more likely it is to activate the same or connected memory nodes (Gernsbacher & Foertsch, 1999). Activated memory nodes transmit processing signals that
either enhance or suppress the activation of other nodes and thereby control the structure building process (Gernsbacher, 1990; Kintsch, 1988). Gernsbacher & Foertsch (1999) propose that these three processes - that is, laying a foundation, mapping relevant information onto that foundation, and shifting to initiate a new structure - account for many language comprehension phenomena, particularly in the L2 reading process where learners seek to identify and connect relevant information. A significant element in the Structure Building Framework view of comprehension is the suppression of irrelevant information, so that short-term memory does not become overloaded with information that it cannot process efficiently (Frey, 2005; Gernsbacher & Faust, 1991).

2.4 L1 in L2 teaching

2.4.1 Historic view of the L1 in L2 learning

Although the use of a learner’s L1 in the L2 reading process was for a long time a relatively under-researched area, Kern (1994) stating that “at present it remains unclear precisely what role the native language plays in L2 reading comprehension” (p. 441), it became increasingly obvious that L2 reading is not simply a monolingual event (Upton, 1997). Historically, the use of a learner’s L1 was considered important in L2 learning, through teachings such as the Grammar Translation Method, prior to the mid-nineteenth century (Rodgers, 2014). Teaching was based on the concept that “the first language is maintained as the reference system in the acquisition of the second language” (Stern, 1983, p. 455). However, the reform movement during the mid-to-late nineteenth century saw a rise in opposition against this style of L1 learning (Rodgers, 2014) and, in response to ideas raised by researchers such as L. Sauveur and F. Franke (Chomsky, 1975), who proposed that L2 learning should be undertaken in the target language, new styles of ‘natural’ teaching such as the Direct Method began to emerge (Rodgers, 2014). These teachings viewed use of the L1 during L2 learning as negative, and saw a shift from use of the L1 to a complete avoidance altogether.

Such activities and lessons were “conducted exclusively in the target language” (Rodgers, 2014, p. 12) with no use of the L1 whatsoever. However, what this required was an L2 teacher proficient enough in the target language to refrain from using the L1; thus ignoring the fact that “sometimes a simple, brief explanation in the student’s native language would have been a more efficient route to comprehension” (Rodgers, 2014, p. 13). This view on L2 learning declined by the 1920s, making way for a number of subsequent teaching methods including the Oral Approach, Situational Language Teaching, and the Audiolingual method (Rodgers, 2014). However, what each of these methods lacked, according to Chomsky (2002), was the functional and communicative
characteristics that language entails. A new teaching style known as the Communicative Approach appeared during the 1970s and 80s (Savignon, 1991). Communicative Language Teaching (CLT) focused on language in use by having learners communicate in the L2 for real meaning (Rodgers, 2014). Thus, rather than actively avoiding the use of the learners’ L1 as in the Direct method, CLT tends to view it as neither good nor bad, just something to ignore (Cook, 2001). Having said that, many teachers purporting to use CLT today actively frown on the use of the L1 as may be evidenced by signs such as “English only Zone” posters which still appear in language schools around New Zealand and probably elsewhere in the world too, as well as by the continued requirement for L1 English speakers by schools in Asian countries.

Stern (1992) asserts that ‘intra-lingual’ teaching (i.e. using only the L2) is widely accepted as the best teaching style available and as a result many teachers and learners alike have not considered cross-lingual strategies of learning, instead favouring the traditional view that use of the L2 in the L2 classroom is positive and use of the L1 is negative. Cook (2001) states that

[t]he pressure from this mostly unacknowledged anti-L1 attitude has prevented language teaching from looking rationally at ways in which the L1 can be involved in the classroom (p. 410).

Atkinson (1993) claims that the reason for this negative outlook on the L1 use in the L2 classroom is that SLA, in particular ESL, has been historically based in classrooms in which the teacher cannot speak the learners’ native language, or in classrooms in which a number of different native language speakers are present.

2.4.2 Modern view of the L1 in L2 learning

Researchers now acknowledge that, because learners inevitably access and utilise their L1 throughout the L2 learning process (Cook, 1992), there is no logical reason why learners should avoid its use (Cook, 2001) as it provides vital scaffolding for learners to help each other. This concept is supported by such researchers as Anton & DiCamilla (1999), who state that the “L1 is used as a powerful tool of semiotic mediation between learners” (p. 415). Cook (2001) points out that “dismissing the L1 out of hand restricts the possibilities for language teaching” (p. 405). Stern (1992) argues that “[t]he L1-L2 connection is an indisputable fact of life” (p. 282), and attempting to keep the two languages separate within the classroom goes against what is natural in the learner’s mind (Cook, 2001). “Language teaching that works with this fact of life is more likely to be successful than teaching that works against it” (Cook, 2001, p. 408). In recent years, calls have
begun for a change in traditional-based teaching methods. Brooks & Donato (1994) state that use of the L1 “is a normal psycholinguistic process that facilitates L2 production and allows the learners both to initiate and sustain verbal interaction with one other” (p. 268). Cook (2001) claims that the L1 can be used to build interlinked knowledge of the L1 and L2 in the learners’ minds and allows them to complete tasks and activities through collaborative interaction with fellow L2 learners. In turn, this may provide opportunities for new teaching and learning approaches.

A number of researchers offer various theories on the benefits of L1 use in L2 reading. For example, whilst reading in their L2, learners often rely on L1 vocabulary to make sense of L2 vocabulary (Paribakht, 2005), think about the text in their L1 (Macaro, 2005) and effectively use it to facilitate comprehension of the L2 (Seng & Hashim, 2006), which in turn, results in improved comprehension, decreased stress levels, and increased confidence in one’s own reading ability (Phakiti, 2006). These results arise from such teaching methods as the Alternating Language Approach, in which the teacher and the learners use both the L1 and L2 interchangeably, almost as equals. Cook (2001) states that

[b]ringing the L1 back from exile may lead not only to the improvement of existing teaching methods but also to innovations in methodology. In particular, it may liberate the task-based learning approach so that it can foster the students' natural collaborative efforts in the classroom through their L1 as well as their L2 (p. 419).

Cook (2001) outlines four factors that must be considered when utilising the L1 in the L2 learning process: efficiency, learning, naturalness, and external relevance. Firstly, the term efficiency refers to whether or not it is more efficient and methodically practical to be using the L1 over the L2. The concept of learning raises the question of whether the learner will benefit through use of the L1 in the classroom. Third, the term naturalness concerns whether or not the learners are more comfortable using the L1 for certain aspects of L2 acquisition. And finally, the notion of external relevance is used to address the notion of whether or not use of the L1 would help learners to develop L2 skills for use outside of the classroom environment as well.

2.5 L2 Reading

There are some differences between L1 and L2 reading. L2 readers are often classified as being inefficient, generally engaging in the reading process by utilising a larger number of bottom-up (text driven) skills to construct literal meaning (Nassaji, 2002) rather than by activating relevant
background knowledge to make inferences about the text through top-down (reader-based) processing skills (Sweetnam Evans, 2011).

Bernhardt’s (1991b) study shows that L2 readers do not monitor their own comprehension levels, and do not go back to confirm or disconfirm inferences they have made, nor do they question the decisions they have made in relation to incoming textual information. In other words, they do not access their existing higher order L1 reading strategies (Walter, 2007). The reason for L2 readers inefficiency in reading is generally attributed to the fact that L2 readers’ working memories easily become overloaded with unprocessed textual elements (Walczyk, 2000; Walter, 2007).

However, new research into bilingual reading is beginning to suggest that L2 readers do in fact utilise some higher order L1 reading strategies in certain conditions, which may be linked to L2 proficiency (Kolić-Vehovec & Bajšanski, 2007), although these are carried out less effectively and/or less frequently than they are by L1 readers (Bensoussan, 1998; Han & Stevenson, 2008).

2.5.1 L1 in L2 reading

The use of the L1 by L2 learners to help in the L2 reading comprehension process has been noted by researchers before (see Kern, 1994; Jiménez, García, & Pearson, 1996; Upton, 1997). Cook (1992) suggests that all L2 learners access and utilise their L1 throughout the L2 learning process, stating that

\[\text{the L2 user does not effectively switch off the L1 while processing the L2, but has it constantly available. The L2 knowledge that is being created in them is connected in all sorts of ways with their L1 knowledge (p. 571).}\]

Bernhardt (2011) refers to two language channels active within L2 learners; a clear channel and a degraded channel. The clear channel comes from learners’ L1 knowledge and provides them with such fundamental concepts as phonology, processing strategies, word recognition strategies, and perhaps most importantly, “it is the readers clear channel of first-language culture and first-language literacy that guides the development of the conceptual model on which understanding is based” (p. 5). In developing L2 learners, however, the degraded channel is based on a learner’s L2 knowledge, encompassing all that is learnt in regard to the L2 such as vocabulary, grammar, sentence structure etc. With both of these channels operating together simultaneously, learners have access to both languages, creating a unique combination of factors that work towards the overall goal of reading
comprehension. Similarly, with learners having both the L1 and L2 resources at their disposal to employ within the reading comprehension process, Sweetnam Evans (2013) refers to the fact that:

[comprehension monitoring and the use of higher order comprehension processes in bilingual reading seem to be facilitated if readers feel free to use their first languages (p. 48).]

In a (2011) study by Sweetnam Evans, students were given the chance to respond to a range of L2 texts in either the L1 or L2. Participants favoured their L1 in providing undirected responses and often code-switched between the L1 and L2 throughout the recall process. Sweetnam Evans claims that on the whole participants preferred the L1 to facilitate higher level comprehension, but also that the learners may have favoured it for tasks they believed to be difficult (undirected responses being more difficult than direct recall), and that they may have been easing their cognitive load by reverting back to the L1. She mentions that this has been noted before with Scott & De La Fuente (2008) claiming that use of the L1 lowers the cognitive load whereas the L2 can raise it. Sweetnam Evans cites Seng’s (2006) study that found that learners would make frequent use of the L1 at times when they were struggling in their understanding of difficult ideas or concepts in the text. She argues that this finding confirms the notion that teachers should refrain from banning the L1 in the L2 classroom, and instead encourage its use for aiding comprehension through a number of various comprehension strategies.

2.5.2 Linguistic transfer

One of the most fundamental beliefs with regard to L2 learning is the idea that particular elements of a learner’s L1 and the skills developed in acquiring this language can be transferred to developing aspects of the L2 (Hakuta, 1986; Koda, 2007; Royer & Carlo, 1991). Many researchers (e.g. Bialystok, 2001; Cook & Bassetti, 2005; Koda, 2007) have looked at this concept, commonly known as transfer, or “crosslinguistic influence” as Kellerman & Smith (1986, p. 1) broadly refer to it as. Transfer can be defined as “the ability to learn new skills by drawing on previously acquired resources” (Koda, 2007, p. 17), or as “the influence of L1-based elements and L1-based procedures in understanding and producing L2 text” (Ringbom, 1992, p. 87). Effectively, transfer is using L1 knowledge to facilitate L2 comprehension and development. Through this process, skilled L2 readers can draw upon L1 reading strategies and background knowledge to aid in the overall L2 reading comprehension process.
It is important to note that transfer can be both positive and negative (Benson, 2002), with positive transfer playing on similarities between the two languages to develop acquisition, and negative transfer sometimes resulting in interferences of the learning process when the two languages are different. Benson (2002) argues that transfer can be both a conscious and unconscious process, either working as a deliberate comprehension strategy to fill in gaps of the learner’s knowledge base (conscious), or as a subconscious strategy for when the correct form/structure is unknown by the learner, or is not sufficiently cemented in their working memory (unconscious).

Throughout the 1950s and 60s, many believed that the errors L2 learners would most commonly make could be predicted based on the differences between their L1 and L2 (Benson, 2002), and that negative transfer resulted in L2 interferences from the L1 (Koda & Reddy, 2008). The reason for this, as Benson (2002) outlines, was because of behaviourist theories in SLA in which L2 learners formed habits based on L1 knowledge that were transferred to, and interfered with, newly-learnt habits of the L2. However, recent years have seen a significant change in this view, and it is now widely accepted that transfer occurs in a far more complex manner than was believed in the past (Benson, 2002), and that the L1 and L2 have significant interrelated roles to play in the SLA process. Of this modern outlook, Koda & Reddy (2008) state that

… the language proficiency underlying cognitively demanding tasks, such as literacy and academic learning, is largely shared across languages, and therefore, once acquired in one language, it promotes literacy development in another (p. 497).

Taillefer & Pugh (1998) looked at the reading strategies of ESL learners and found they would often employ L1 comprehension strategies throughout the L2 reading process with strong L1 reading strategies often compensating for weaker areas of the L2. This finding is consistent with the compensatory view of L2 reading comprehension (Bernhardt, 2011). Kern (1994) states that

[i]f learners process a large percentage of the meaning of a second language text in their native language during reading, they will logically produce higher levels of recall in the LI, regardless of L2 production difficulties (p. 456).

Interestingly, Royer & Carlo’s (1991) study on transfer in Spanish and English bilingual learners found that not only do reading skills transfer successfully from the L1 to L2, but listening skills can also transfer into reading skills in the L2, which the authors claim suggests an “indirect effect of general linguistic ability on reading performance, operating through the medium of oral language acquisition” (p. 454). This finding also suggests a link between verbal communication and the
transfer of reading skills. However, the study also found that general language ability does not play a significant role in the transfer of reading skills. This finding is supported by Cummins’ (1984) theory that the basic interpersonal communication skills (BICS) of the L1 do not necessarily transfer into BICS of the L2, and by Hornberger (1989) who claimed that the interrelationship between a learner’s L1 and L2 is extremely complex and not all elements of the L1 will aid development in the L2.

2.5.3 Mental translation

Research has found that L2 readers will often rely on mental translation to paraphrase L2 texts into the L1 to aid in the overall comprehension process (Kern, 1994; Upton, 1997). Translation can be defined as “the expression of a message in a language other than the one in which it was originally formulated” (Kern, 1994, p. 442), or, as “using the first language as a base for understanding and/or producing the second language” (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985, p. 33). Learners produce L1 representations of the L2 in their minds; mental translation is not a direct written or oral production.

In recent years, researchers have referred to mental translation as a cognitive strategy used by L2 readers (see Anderson, 1991; Block 1986; Chamot & Kupper, 1989). The use of translation within the L2 learning process has also been criticised and condemned with some calling it uncommunicative, boring, pointless, difficult, and irrelevant (Maley, 1989), primarily because of the highly negative-reaction towards the traditional Grammar-Translation method in the past (Izumi, 1995). Cook (2001) agrees with the fact that there may be issues with translation, stating that

[t]he chief problem may be using translation as linguistic detective work rather than as a communicative exercise to convey in one language what has been expressed in another (p. 417).

If used in the L2 classroom strategically, some modern researchers do not view translation as a problem, with many claiming there is no fundamental reason why translation should be viewed as wrong (Cook, 2001). The opinion that the L1 and L2 cannot be treated in isolation from one another has become more and more prevalent, with Cook (1992) stating that “the L1 is present in the L2 learners' minds, whether the teacher wants it to be there or not” (p. 584). Studies from the latter half of the twentieth-century have shown that L1 translation used in understanding the L2 is not an uncommon comprehension strategy for L2 learners (see Chamot, Kupper, & Impink-Hernandez,
1988a, 1988b), and that translation is a specific and unique attribute of L2 learners and a normal part of their learning process (Malakoff & Hakuta, 1991). Kern (1994) states that

… mental translation during L2 reading may facilitate the generation and conservation of meaning by allowing the reader to represent portions of L2 text that exceed cognitive limits in a familiar, memory-efficient form (p. 441).

In his (1994) study, Kern found that, during the L2 reading process, mental translation facilitates meaning by providing the reader with a representation of the textual details that exceed their L2 cognitive limitations, meaning that learners employ their L1 to help in comprehending sections of the text that their L2 cognition cannot handle. This is particularly the case during the early years of L2 acquisition. As Hawras (1996) claims, at the beginning “mental translation is not just the major, but the only comprehension tool at the student’s disposal” (p. 65). Whilst this may seem extreme, it stresses the importance of a learner’s L1 in the L2 reading process, and the effective role that translation can play in facilitating the L2 reading comprehension.

2.5.4 Code switching

Code switching can be defined as “the systematic alternating use of two languages or language varieties within a single conversation or utterance” (Liebscher & Dailey-O’Cain, 2005, p. 235). It acts as a compensatory strategy for L2 learners, allowing them to switch from the L2 to L1 and back again (Sweetnam Evans, 2011). It is considered “a normal feature of L2 use when the participants share two languages” (Cook, 2001, p. 418), and is a common trait amongst people who speak more than one language (Romaine, 1995).

There are a number of reasons why a learner may choose to code switch, so much so that Auer (1990) claims that the varying functions in which code switching occurs are so many that it is impossible to compile an entire list. However many researchers have suggested just some of the circumstances in which code switching is often employed by L2 learners, including “to compensate for lack of language proficiency” (Milroy & Muysken, 1995, p. 165), when “a word in a base language is not currently accessible” (p. 167), and to substitute a word or phrase from one language to the other (Li, 1996). Liebscher & Dailey-O’Cain (2005) state that

… students code-switch not only as a fallback method when their knowledge of the L2 fails them, or for other participant-related functions, but also for discourse-related functions that contextualise the interactional meaning of their utterances (p. 234).
L2 learners will often elect to code switch to scaffold themselves and others when they encounter a problem during reading or L2 production that exceeds the cognitive ability or proficiency level of their L2. Zentella (1997) states that “[w]hat monolinguals accomplish by repeating louder and/or slower, or with a change of wording, bilinguals can accomplish by switching languages” (p. 96). Learners may also choose to code switch for social reasons including to show solidarity, for in-group behaviour, for status marking, or simply for their own amusement (Holmes, 2008).

In Cohen’s (1995) study of bilingual and multilingual university students, results found that those students with two or more languages at their disposal frequently shifted between them in both unintentional and intentional manners. Unintentional shifting occurred in times when the thinking and processing of a text was easier to carry out in one language over the other (also see Kern, 1994, on L2 cognitive compensation in the L1, and Scott & De La Fuente, 2008, on L2 cognitive overload). On the other hand, intentional shifting occurred when learners required help in understanding specific textual details such as grammar and vocabulary of the target language etc. A lot of code switching is done playfully - for fun - and clearly does not involve a high cognitive load.

However code switching has both its pros and cons. Aside from being looked upon as a beneficial compensatory strategy for L2 learners, many view it as a time-consuming process in which learners must employ a ‘two switch system’ to decide which of their two languages will be ‘on’ (in use) and which will be ‘off’ (MacNamara & Kushnir, 1971). As a result, code switching is still sometimes looked upon negatively, with many language classrooms still avoiding the L1 (Levine, 2003) despite the benefits that code switching can provide L2 learners with, and the fact that it is a natural process within SLA.

2.6 Collaborative groups
Collaborative and cooperative learning are similar in practice, each having students work together to achieve specific targets and objectives. Cooperative learning has even been called a specific type of collaborative learning. For the purpose of this study, I will treat them as the same concept, which Olsen & Kagan (1992) define as

… a group learning activity organised so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others (p. 8).
This definition provides key insights into the characteristics of cooperative learning, that is, it is structured, learners interact with and reply upon one another for motivation, and they are responsible for their own learning. Learners contribute to the collaboration equally, a concept that Olsen & Kagan (1992) refer to as ‘positive interdependence’, but take responsibility for their own learning too. In other words, it is the responsibility of the entire group to ensure that everyone understands the context of discussion (positive interdependence), but it is up to individual learners to solidify their own understanding and overall comprehension of the text (individual accountability) (Kirby, 2008).

Past research (e.g. Beck, McKeown, Worthy, Sandora and Kucan, 1996; Klingner, Vaughn & Schumm, 1998) has looked at students comprehending what they read through collaborative discussions and peer interactions. However, what research has gone into group discussions amongst learners has predominantly focused on groups of learners with different native languages (Hancock, 1997), and very little has gone into collaborative discussions between learners of the same native background.

Recent trends in pedagogical techniques have shown an inclination towards learners’ active involvement in the learning process. Many researchers have suggested the incorporation of collaborative groups or cooperative learning into the classroom environment (Farzaneh & Nejadansari, 2014). Collaborative groups are known to be effective in promoting learners’ engagement with the text, and facilitating overall comprehension of the text (Finlay & Faulkner, 2005). Palincsar & Brown (1984) discuss reciprocal teaching which fosters comprehension. The authors consider four key processes involved in developing reading comprehension: summarising (self-review), questioning (of the main idea), clarifying, and predicting. When discussing texts, learners are encouraged to constantly refer back to the text even after they have finished reading, to post-dict (Sweetnam Evans, 2007), i.e. to look back on a textual element with knowledge of how the text has unfolded, and to re-read, which provides such benefits as enhanced textual processing and overall textual comprehension (Raney, Therriault, & Minkoff, 2000). Collaborative groups involve guided discussion of texts, which has been shown to enhance comprehension and promote peer interaction (Brown & Palincsar, 1984). In terms of reading specifically, collaborative groups have been shown to enhance comprehension and encourage strategy use (Klingner, Vaughn, Arguelles, Hughes & Leftwich, 2004). Sweetnam Evans (2013) states that
[d]iscussion itself serves as a form of comprehension monitoring and provides opportunities for backtracking and re-reading. Learners can ask one another questions about sections of the texts that they don’t understand. They can work together, scaffolding one another as they construct meaning socially by activating and pooling their background knowledge, comparing their inferences and constructing coherent mental texts based on their joint input (p. 49).

Group discussions provide L2 learners with a number of benefits in terms of SLA. Not only do they provide learners with opportunities for communicative input and output, and for the all-important negotiation between learners (Gass & Varonis, 1984), but the collective contributions of learners within a group can often exceed the achievements of individuals, creating an optimal knowledge-building environment (Bereiter & Scardamalia, 2003), and allows for the social construction and sharing of knowledge (Martin-Jones, de Mejia, & Hornberger, 2008).

McGroarty (1989) lists a number of beneficial factors involved in cooperative learning and collaborative groups within the language classroom. She claims that group discussions provide learners with opportunities for learner interaction and negotiation of meaning, which in turn, allows learners to become more active in their own language learning progress, providing help to one another and depending less on the teacher. She also states that, because collaborative groups can be utilised in any content area within the classroom, they provide students with a greater variety of topics with which they can interact and discuss instead of dealing solely with language-based themes and ideas. Cooperative learning also allows for a larger variety in the use of learning materials that provide learners with access to a range of spatial, visual, and manual abilities alongside their discussion-based verbal skills. McGroarty also refers to the role of the teacher in collaborative learning, claiming that the teacher becomes a facilitator for discussion and interaction to occur rather than simply acting as an imparter of knowledge, which provides students with greater opportunities and levels of motivation to take part in the learning discussion. Finally, she mentions the role of cooperative learning for learners in a bilingual environment, stating that they can “draw on primary language resources as they develop second language skills” (p. 132), implying that learners may use both their L1 and L2 to facilitate discussion and complete a task (code switch).
Long & Porter (1985) refers to a traditional teaching method known as *lockstep*, which they define as follows:

… one person (the teacher) sets the same instructional pace and content for everyone, by lecturing, explaining a grammar point, leading drill work, or asking questions of the whole class (p. 208).

Studies (such as Flanders, 1970) show that when the lockstep instructional method is employed within the classroom, the teacher speaks for at least half of the time, leaving students with very little time or opportunities to practise themselves, and the method is thus viewed negatively by some. As a result, researchers such as Long & Porter (1985) have claimed that collaborative group work is an effective means of learner interaction that helps minimise the negative consequences of the lockstep method on learners. They list 5 pedagogical arguments for the use of collaborative group work in the L2 learning process:

1.) Increased language practice opportunities.
2.) Improved quality of learner speech.
3.) Aided individualised instruction.
4.) Promotion of a positive, affective climate; and
5.) Increased motivation of learners.

According to the authors, both points (1) and (2) are effective means of avoiding the negative consequences of lockstep instruction by improving the *quantity* and *quality* of learners’ L2 production. This is because “[s]tudents receive significantly more individual language practice opportunities in group work than in lockstep lessons” (Long & Porter, 1985, p. 221). Point (3) avoids the lockstep’s flaw of not catering to individual learner differences within the classroom, with point (4) removing the stress that learners may encounter in a lockstep environment when called upon to answer questions in front of the class. The point about a lockstep approach and discrete point is that grammatical features are dealt with by the teacher one at a time, out of natural communication context, and then not dealt with again. The assumption is that language can be broken up into discrete units that can be ‘learned’ one after another.

Even today there are teachers who continue to favour such traditional teaching methods as the lockstep model and discrete point, many of whom hold negative and reserved opinions towards collaborative discussions (particularly those involving the L1) as a result. For example, many are concerned over the fact that using the L1 may lead to the habit of constantly associating an L2 word...
with its L1 equivalent (Izumi, 1995), or that use of the L1 interferes with the L2 learning process (Ellis, 1985). Hancock (1997) dismisses such concerns, however, stating that

[f]or the teacher who is worried about the quality of the language practice that learners get in group work, it is important not to assume that all L1 use is ‘bad’ and all L2 use is ‘good’ (p. 233).

Long & Porter (1985) agree, claiming that collaboration through group work rarely compromises language accuracy or ability, and that group work is beneficial to L2 learners from both a pedagogical and psycholinguistic viewpoint. Their study found that L2 learners’ level of language accuracy in unsupervised collaborative group work was the same as in teacher-monitored activities, a finding that “should help to allay fears that lower quality is the price to be paid for higher quantity of practice” (p. 223).

2.6.1 L1 in L2 collaborative groups

Seng (2006) states, “not much is known with regards to the extent of L1 use and the possible reasons for its use in small reading groups in the L2 classroom” (pp. 29-30). However, with new research suggesting the benefits of working with the L1 in the L2 learning environment, and proven results that collaborative group work can aid in the L2 acquisition process, it is only natural that research should look at these two concepts in cooperation with one another. For example, Villamil & De Guerrero’s (1996) study listed five strategies employed by collaborative learners, three of which involved the use of the L1. They found that, for majority of the learners “the L1 was an essential tool for making meaning of text, retrieving language from memory, exploring and expanding content, guiding their action through the task, and maintaining dialogue” (p. 60). Sweetnam Evans (2013) outlines just some of the benefits of L1 group discussions directly following (or even during) the reading of L2 texts, including the facilitation of learners accessing their L1 reading skills, and the promotion of a “strong situation model and textbase characteristic of skilled L1 reading and essential to any comprehension” (pp. 49-50).

Arnold & Ducate (2011) claim that “learning is facilitated by social interaction, often within the zone of proximal development (ZPD)” (p. 11) where learners’ cognitive development occurs (Antón & Dicamilla, 1999). Robin (2012) defines the ZPD as

… Vygotsky’s notion of the distance between what the learner can do unaided in pursuit of an instructional goal and the abilities required for the goal itself (p. 116).
Having learners employ their L1 within the L2 learning activities such as group collaboration allows them to work within the ZPD by providing scaffolded help to one another (Rommetveit, 1985). Antón & Dicamilla's (1999) study into the use of the L1 in L2 learning tasks ultimately found that through collaborative interaction and discussion groups between learners, the L1 provides a vital opportunity for L2 acquisition to take place. Of their results, they state that

[the] L1 is deployed to provide scaffolded help in the ZPD. By means of the L1 the students enlist and maintain each other's interest in the task throughout its performance, develop strategies for making the task manageable, maintain their focus on the goal of the task, foreground important elements of the task, discuss what needs to be done to solve specific problems, and explicate and build on each other's partial solutions to specific problems throughout the task (p. 237).

In collaborative tasks, the L1 serves not only as a basic cognitive function within the L2 learning process, but for social functions as well. Particularly for low-level proficiency learners, the use of the L1 is in fact a necessity in creating a social environment in which learners can scaffold one another to complete and share a perspective on the task at hand (Long & Porter, 1985). Wood, Bruner, & Ross (1976) define scaffolding as a metaphor for the interactive relationship between an expert and a novice involved in the completion of a task in which the expert works on those areas of the task beyond the learner’s ability, leaving the learner to focus on areas more suited to their own level of competence. Knowledge moves between learners within the group with each member contributing different skills and expertise to the overall task at hand (Antón & Dicamilla, 1999; Donato, 1994; Villamil & De Guerrero, 1996). In terms of L1 discussions on L2 texts post-reading, learners can work together to scaffold one another by playing to their own, individual strengths. “By using L1 these learners provide mutual help to each other that will lead to the solution of the problem” (Long & Porter, 1985, p. 238). In order to foster comprehension, learners can construct meaning of a text by combining their background knowledge, comparing and contrasting initial inferences of the text, and constructing their own mental representations of the text based on such joint input (Sweetnam Evans, 2013).
CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter looks at why a mainly qualitative approach was selected with minor elements of a quantitative approach, and includes an explanation of the qualitative method approach and its major characteristics. Next, it outlines biases that may have influenced the analysis and interpretation of the data in the project. Following that, the research objectives of the study are presented, and the research process, participants involved, and methods of data analysis are described.

3.1 Approach

A mixed methods approach was selected for this study, with the main focus on qualitative analysis. Some quantitative methods were also employed in the calculation of percentages of particular elements included in the participants’ recalls of the texts.

3.1.1 Qualitative approach

I have chosen a mainly qualitative approach for the present study as I believe it is best suited to the format in which the study will be carried out to achieve the overall research objectives. Bodgan & Biklen (2007) define qualitative research as

… rich in description of people, places, and conversations, and not easily handled by statistical procedures. Research questions are not framed by operationalizing variables; rather, they are formulated to investigate topics in all their complexity, in context (p. 2).

Creswell (2013a) claims that a qualitative approach is one in which the researcher attempts to develop recurring themes based on the data. This is achieved by data collection using such strategies as ethnographies; the observational study of a specific cultural group in a natural setting, Grounded Theory, (in which “the researcher attempts to derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study”, p. 14), case studies which explore a process or activity of one or more individuals, and phenomenological research, which works to identify the “essence” of personal experiences concerning the phenomena involved in the study (p. 14).
3.1.2. Rationale for a qualitative method

I have taken Creswell’s (2013a) criteria into consideration for choosing my methodology, namely:

1.) the research problem;
2.) the personal experiences of the researcher, and;
3.) the audience(s) by whom the study will be read.

These three factors played a significant role in the selection of a qualitative approach within the current research project.

3.1.2.1 Research problem

This study examines the effects of L1 and L2 post-reading group discussions on learners’ written recalls of L2 texts. Because this concept is a relatively new, under-researched area of L2 teaching and reading not previously examined by many researchers, it is not yet known which concrete theories and important variables should be examined. Creswell (2013a) states that when “a concept or phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach” which is exploratory in nature (p. 22).

The present study considers participants’ perspectives on the use of the L1 within their own L2 learning process. When a study is concerned with perspectives, a qualitative approach is best (Bodgan & Biklen, 2007). The qualitative approach is also particularly useful in informing L2 teachers of student concerns by placing emphasis on student perspectives and understanding (Bolster, 1983). Maxwell (2005) claims that qualitative research is suited for achieving research objectives such as “understanding something - gaining insight into what is going on and why this is happening” (p. 21). Because this study aims to determine individual participants’ perspectives, a qualitative approach is suitable.

3.1.2.2. Personal experiences of the researcher

The personal experiences of the researcher is also relevant in the choice of a qualitative approach, because the researcher is familiar with a “more creative, literary-style writing” (Creswell, 2013a, p. 23) than with scientific writing or statistical analysis. The freedom that the qualitative approach allows for is more suited to the researcher’s personal preference, and this is another reason why a qualitative approach was selected for this study.
3.1.2.3 The audience and readership for the study

Despite the fact that applied linguistic research may not use qualitative methods exclusively, the use of a qualitative approach was confirmed for this study based on the potential readers of the thesis, typically including “journal editors, journal readers, graduate committees, conference attendees, or colleagues in the field” (Creswell, 2013a, p. 23), and as such is the most appropriate approach typically used in related areas of applied linguistic research.

3.1.3. Characteristics of qualitative research

Bodgan & Biklen (2007) outline five defining characteristics of qualitative research:

1.) it is naturalistic;
2.) it deals with descriptive data;
3.) it is concerned with the process involved;
4.) it is inductive; and
5.) it has meaning.

They also maintain that in any given qualitative research project, “the question is not whether a particular piece of research is or is not absolutely qualitative; rather it is an issue of degree” (p. 4). This study has been carried out in a manner consistent with Bodgan & Biklen's characteristics despite the fact that not all traits are exhibited equally.

The first characteristic that Bodgan & Biklen (2007) outline is that “qualitative research has actual settings as the direct source of data” (p. 4) - a concept which they refer to as being ‘naturalistic’. Qualitative researchers are concerned with context and seek to understand the participants’ context by visiting the setting and gathering information personally (Crotty, 1998). It is therefore important that qualitative data is collected in real-life situations as results can be significantly influenced by the setting in which they are collected. In this study, the data was collected in a classroom-type setting to simulate an everyday situation for the participants studying English.

The second characteristic is that data collected is descriptive. In other words, it takes the form of words rather than numbers. The written results of qualitative research contain quotations, interview transcripts, field notes, and memos etc., to help illustrate a concept in the form of a narrative. In the present study, data collection involved discussion transcripts, written responses, and field notes to describe the participants’ use of, and attitudes towards, the L1 within the L2 learning process. For example, participants provided written data on their recall of individual texts, feedback on their
opinions about using the L1 within the L2 learning process, and engaged in verbal discussions that were recorded. These data, including the transcripts of the discussion groups, were used to illustrate and substantiate the results of the study.

The third characteristic is that “qualitative research is concerned with a process rather than simply with outcomes or products” (Bodgan & Biklen, 2007, p. 6). Whilst quantitative research often deals with numeric data and thus has no need to be descriptive, qualitative research is more concerned with the way in which the findings are arrived at. This is best achieved when the researcher is on site collecting direct data from an actual setting, which was done in this study.

The fourth characteristic is that qualitative data is analysed inductively from the bottom-up. Qualitative researchers do not test existing theories to prove their objectives, but instead construct a broader picture as they examine the data and connect the pieces to form a whole. This is because they are concerned with a process (the how, what and why). In this study, I have looked for recurring themes and patterns, analysed the dialogues and made inferences and interpretations based on the data at hand, and used this knowledge to piece together the outcomes of the effects of L1 and L2 group discussions on L2 reading comprehension.

The fifth and final characteristic is that qualitative researchers are interested in “participant perspectives” (Bodgan & Biklen, 2007, p. 7). In this study, the data was analysed inductively to allow such perspectives to emerge. I wanted to learn about participants’ attitudes and personal opinions towards using the L1 within the L2 learning process, and whether or not they believe it to be a beneficial factor in their own L2 learning. Through both the written responses and verbal discussion data collected, I hope to determine the participants’ perspectives on the value of using the L1 to aid in their acquisition of the L2.

3.1.4 Strategies

There are a number of strategies available for use within a qualitative research study (see Tesch’s 1990 list of forty-five approaches). Among them, a case study approach has been selected for use within this study.
3.1.4.1 Case study

There are numerous definitions of what a case study is. For example: a “systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest” (Bromley, 1990, p. 302), or, “the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances” (Stake, 1995, p. xi). Creswell (2013b) perhaps defines it best, stating that

[case study research is a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded cases (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes (p. 97).

The present study conforms to Creswell’s definition of a case study because I am investigating a bounded system with multiple methods of data collection to determine the overall effects of L1 and L2 group discussions on L2 reading comprehension. A bounded system is viewed as an object rather than a process (Stake, 1995), and may refer to any entity that is the main focus of investigation; anything from an individual to an entire class, that is used to gain an insight into the perspectives of those involved (Creswell, 2013a). The specific bounded system used within this study is a group of native Japanese L1 participants. Bodgan & Biklen, (2007) state that this kind of ‘group’ refers to “a collection of people who interact, who identify with each other, and who share expectations about each others’ behaviour” (p. 61).

Stake (1995) adds that two fundamental objectives of case study research are to “obtain the descriptions and interpretations of others” (p. 64). This is underscored in my research in which I investigate the attitudes and perspectives of individual L2 learner’s towards the L1-L2 relationship within the their own L2 learning process.

Stake (1995) further defines three categories of case study research, each with its own unique research approach: intrinsic, instrumental, and collective. Because the present study is based on developing an insight and understanding into the role of L1 and L2 group discussions on the comprehension of various L2 text genres, and considers the learners’ individual perspectives towards this relationship, I believe an instrumental case study, in which the researcher focuses on a particular issue and illustrates this issue with a single case (Creswell, 2013b), is the most suitable
approach to carry out the study at hand. Stake (1995) defines an instrumental case study as having a “research question, a puzzlement, a need for general understanding, and a feel that we may get insight into the question by studying a particular case” (p. 3).

3.2 Biases

Particularly within qualitative studies in which data must “go through the researcher’s mind” (Bodgan & Biklen, 2007, p. 37), researchers must be careful not to alter data subjectively. Denkin & Lincoln (2003) claim that early on in a study, qualitative researchers should identify their own biases, ideologies and conceptual frameworks that may have an impact on their study. In doing so, researchers acknowledge their own perspectives that may affect their findings. This also provides a grounding from which the research questions that guide the study are based. Despite this, Bodgan & Biklen (2007) claim that most prejudices are superficial, and that the data that are collected provide a much more detailed rendering of events than even the most creatively prejudiced mind might have imagined prior to the study (pp. 37-38).

As stated in Chapter Two, new research has begun to suggest a positive correlation between L1 group discussions and an increased competence level in certain aspects of the L2. As a result of this proposition, I began the present study believing that there could be potentially positive effects of L1 group discussions on L2 reading comprehension as demonstrated by the literature review. This bias may have had an effect on my findings, although I attempted to remain neutral throughout the research process. I must also acknowledge the fact, however, that had I not begun the study with any beliefs towards the case either way, I would most likely not have carried out the study at all. My initial beliefs were a significant contributing factor to my interest in the topic at hand, as will always be the case in research.

One of the main methods of data collection regarding participants’ personal perspectives towards using the L1 with the L2 throughout this study was by questionnaires which allowed participants to respond to specific questions. This is another bias I must address. Questionnaires reflect the personal interests of the researcher by whom they were created (Bodgan & Biklen, 2007). Whilst efforts were taken to use broad and varied open-ended questions (Creswell, 2013a), so as to allow the participants the freedom to express their honest opinions and perspectives, questions inevitably reflect some bias of the researcher.
As previously stated, qualitative research is concerned with the personal gathering of data from actual settings (Bodgan & Biklen, 2007; Crotty, 1998) in the pursuit of ‘naturalistic’ research. This concept forms the foundation upon which the final biases I must address rest. The “observer” or “Hawthorne” effect (Bodgan & Biklen, 2007) is a phenomenon which sees participants modify their behaviour when they know they are being watched. Although care was taken to have little contact with the participants, and what little contact there was, was as unobtrusive as possible, my general presence as the researcher during the data collection process undoubtedly had an affect on the behaviour of the participants in the study. The setting was therefore not totally ‘natural’ or ideal. Furthermore, the surveys and questionnaires used throughout the study in which participants were asked to produce written recalls and to say what they thought and how they felt about the texts might also have affected what they thought about the whole area being studied by the researcher. Bodgan & Biklen (2007) sum this concept up with a simple phrase; “[m]ight not asking a person for his or her opinion create an opinion?” (p. 39).

To summarise, my expectations for the study, the questionnaires used throughout, and the unavoidable observer effect may have influenced my approach to the study and interpretation of the data.

3.3 Research design

The primary aim of this study was to explore the effect of L1 and L2 group discussions on the reading comprehension of various L2 text genres. I was interested in determining whether or not L1 group discussions provided L2 learners with a deeper understanding of L2 texts, and whether this varied between different textual genres. I also wanted to identify the attitudes and perspectives of the L2 learners towards using the L1 within the L2 classroom, L2 instructional situations, and in L2 reading on their own. In order to do this, participants were given free range to discuss and provide written recalls of and responses to L2 texts in whichever language (L1 or L2) they saw fit. Any evidence that they had used their L1 might suggest that they had employed it to facilitate L2 reading comprehension.

3.3.1. Participants

This study involved fifteen participants (eight male, seven female). The participants were Japanese L1 undergraduates studying at the University of Otago, New Zealand, in their early twenties (twenty to twenty-two). All fifteen participants underwent secondary school education in
Japan with Japanese as their language of instruction. All agreed to participate in the project voluntarily. Ethical approval was obtained from the University of Otago Human Ethics Committee.

These participants were selected because of their shared L1, and similar proficiency levels in English L2 (all had passed IELTS at level 5 or greater). They were not selected because of their undergraduate status (although this did remove unnecessary variables). None of the participants was studying literature specifically, and it could therefore be assumed that all had similar L2 literary skills.

3.3.2. Methodology

A pilot study was carried out on five separate participants prior to the formal study to ensure that the research methodology was suitable for the task at hand. The results of the pilot study determined that the method and texts were satisfactory, and that the study was able to go ahead as planned.

Participants were split into three groups at random, each containing five members, and were instructed on what was expected of their individual group. All three groups read the same four L2 texts. Group 1 read the texts and responded to them on their own without discussion with others. Group 2 read the texts and discussed them afterwards using only their L2 (English) before responding individually. Group 3 read the texts and discussed them afterwards using only their L1 (Japanese) before responding individually. This distinction was to determine 1.) whether or not group discussions facilitate L2 reading comprehension, and 2.) whether or not the L1 results in more effective reading comprehension. Participants were instructed not to refer back to the texts after the first reading. All written and verbal task instructions (see Appendix 3) were kept to a minimum, and were provided in both English and Japanese so as not to prime participants into using any one specific language in their responses.

The participants were each given four selected L2 texts (see Appendixes 4, 5, 6, and 7) to read. These included a poem; ‘July’ by Peter Davison (July, 88), a modern parody of the short story ‘Little Red Riding Hood’ (Red Riding Hood, 606) which reflects modern issues of sexism and feminism, a joke (Dirty Coffee, 53) involving a word-play in the punch-line, and an expository article (Bug Bites, 910) on the science and customs of bug-eating cultures. The brackets following these texts show my abbreviations to be used throughout the study, and the number of words in each
text. The four texts were selected for use because of their diverse range of genres, the unique opportunities they each provide for discussion, and for their likelihood to elicit story-driven, information-driven and literary reading from the learners (see Vipond & Hunt, 1984).

Participants were provided with very few instructions or directions on what was expected of them throughout the study in an attempt to avoid influencing their comprehension strategies. They were thus free to create their own meanings and interpretations for each text, and their recalls and responses could therefore be considered undirected and uninfluenced by the researcher. They were, however, encouraged by the researcher to underline any areas of difficulty or misunderstanding in each of the texts to refer back to during later group discussion.

No time limit was imposed on the reading or discussion of the texts so as to create an environment which allowed the participants to read ‘naturally’. To avoid textual expectations or predictions, texts were simply entitled ‘Text 1”, “Text 2”, “Text 3”, and “Text 4”. Participants were not informed of the genres of the texts at any stage throughout the study, nor were they told that there were different genres. The researcher remained silent and distanced himself from the group throughout the reading, discussion, and response periods. The discussions were audio recorded by the researcher for later reference.

Participants read each of the four texts individually at their own, comfortable pace. They then formed their groups (as outlined above), and discussed their views and opinions concerning the texts. Following the discussion period, participants responded individually in writing to the texts. Their written responses were based on 1.) text recalls (what they could recall from the text), and 2.) response comments (any comments, insights and opinions they had regarding the texts) (see response sheets in Appendix 8). Participants were able to comment in whichever language (Japanese L1 or English L2) they felt most comfortable. Participants were reminded by the researcher at the beginning that the point of this study was not a test of their English ability, but rather a measure of their L2 reading comprehension levels, and it was therefore preferred that they wrote down exactly what they remembered and thought about the texts, even if that meant using their native L1 language.

Finally the participants were given a one page list of open-ended questions (see Appendix 9), which asked them to provide their personal opinions, perspectives and attitudes towards the use of the L1
within their L2 learning. The recalls, responses, and answers to the questions were then collected and translated into English by the researcher.

3.4 Data analysis

This study measures participants’ comprehension of each of the four texts on the basis of meaningful indications in relation to narrative and expository features and conventions. This is an ‘informal’ method of comprehension evaluation but one that I believe best suits the present study’s research approach. Leslie & Caldwell (2009) define informal reading comprehension measures as:

… assessments that do not interpret scores using comparative or normative data or employ standardised procedures for administration and scoring. Informal measures are primarily used by classroom teachers and assessment specialists to draw inferences about student performance and to inform instruction, that is, to make instructional modifications as suggested by student achievement (p. 8).

Participants’ comprehension of each text was evaluated through free written text recalls and response comments. Asking specific questions about the texts was deliberately avoided because such questions target only selected areas of the reading material (Fuchs, Fuchs, & Maxwell, 1988), and may have a directing influence on the participants’ comprehension processes. Researchers such as Leslie & Caldwell (2011), who have looked at the use of recall responses in comprehension evaluation, suggest that asking learners to recall a text is a valuable assessment tool, and that “useful information concerning comprehension competence and strategic behaviour can be derived from recall analysis” (Fuchs, Fuchs, & Maxwell, 1988, p. 21).

For analysis purposes in this study, participants’ text recalls and response comments were dealt with in combination in the results and discussion sections. This was done to avoid the introduction of extra variables into the data. The focus of the present study was not to investigate whether participants treated simple recalls differently from responses about the text, but rather, how their recalls and response comments about the texts indicated their comprehension, and whether they had constructed effective mental representations of the texts (textbases and situation models) through the use of both top-down and bottom-up reading strategies. Two separate cues were used to encourage participants to think and write more about the texts so as to elicit more data to analyse their comprehension overall.
This study involves four texts: a poem, a short story, and a joke; all of which include elements of narrative, and an article involving expository textual conventions. Narrative texts are stories, which Calfee and Drum (1986) claim “generally tell ‘what happened.’ Who did what to whom and why” (p. 836). Narrative recall can be measured through the degree to which specific elements of the story, such as characters, settings, events, problems, and resolutions (Stein & Glenn, 1979) are retold. Narrative comprehension can also be measured based on the extent to which there is evidence that the learners have constructed a situation model of the text in accordance with the Event-Indexing Model (Zwaan et al., 1995; also see Grasser, Millis, & Zwaan, 1997; Johnson-Laird, 1983; van Dijk & Kintsch, 1983). As stated in Chapter Two, a situation model is a “cognitive representation of the events, actions, persons, and in general, the situation that a text is about” (van Dijk and Kintsch, 1983. pp. 11-12). The degree to which learners are able to develop a situation model and recall narrative elements forms the basis upon which different levels of comprehension can occur, and provides an insight into their overall comprehension of the text. This was used in the analysis of participants’ comprehension for texts 1, 2, and 3.

Comprehension of expository texts can be measured based on the recall of conceptual sections (Leslie & Caldwell, 2011), recall of the textual information in the text, and connections learners make with their own knowledge. Speaking on Meyer’s (1975) method of text structure analysis, Akhondi & Malayeri (2011) state that

> [t]he ideas at the top [of the structure] are the main ideas of the text while the ideas at the bottom […] represent details. Competent readers are normally able to identify the main idea of the passage followed by the major ideas, and the related supporting details. The proficient readers are successful in discovering the underlying rhetorical structure of the passage, different levels of ideas, and their interrelationships properly (p. 5).

As Kieras (1985) points out, when reading unfamiliar information in expository texts, skilled readers will construct idea units (also known as *propositions*) of the text, and assemble these propositions into higher levels of representation (known as macro-propositions) (see Kintsch & van Dijk, 1978). The concepts mentioned at the beginning (top of) of an English language expository text are thought to be more thematic, therefore representing the macro-propositions (Keiras, 1980), and function as greater recall cues (Keiras, 1981) than those mentioned later in the passage (micro-propositions). The extent to which participants were able to recall the overall textbase (Kintsch,
1988), including both the macro-propositions and macro-propositions, also played a part in the analysis of their comprehension of text 4.

3.4.1 Coding of participants’ recalls and response comments

Participants’ comprehension of text 4, the expository text, was examined using a framework based on Kintsch’s (1988) Construction-Integration Model and Meyer’s (1975) outline of the overall surface structure. This includes elements such as the ‘text summary’, which indicate whether or not participants are able to provide a general overview of the article as a whole, ‘macro-propositions’, which indicate participants’ ability to outline the main issues and topics raised in the text, and ‘micro-propositions’, which indicate their comprehension of less prominent sub-topics. ‘Ranking of ideas’ is concerned with participants’ ability to list the ideas presented in the text both in order of appearance, and in order of importance.

Zwaan et al.’s (1995) Event-Indexing Model for narratives was the framework according to which participants’ recalls and response comments were analysed for texts 1, 2, and 3. The event-indexing model recognises that readers construct situation models while reading narratives, and that these situation models are constituted by character(s), their perspectives, intentions, plans and actions, spatio-temporal setting(s), situations, events and causality (which refers to causal links made between textual features and/or the events). Traditional plot structure (based on Greek tragedy) provides an alternative view of the narratives which are constituted by characters, problems, a climax and a resolution.

‘Linking of ideas’ refers to participants’ causal and logical linking of the ideas and themes in the text with one another. Causal links are recognised in Zwaan’s event-indexing model as being commonly made by readers in the reading of narratives, but they are made in the reading of other texts too. ‘Questioning of text’ provides evidence of participants’ ability to question the reliability and authenticity of the textual information in relation to their own background knowledge, as well as the way in which the text was written. ‘Recalling the wording of the text’ refers to participants’ ability to directly recall the surface word order of the text.

The concepts of top-down and bottom-up processing were introduced by schema theory as part of an interactive theory of reading. Top-down processing refers to participants’ making connections between what they have read and their own relevant background knowledge as they construct
meaning. Top-down processing includes making inferences beyond the mere textual elements. Readers make personal connections/autobiographical links when they connect textual information to their own personal experiences and opinions. Monitoring of one’s own comprehension is recognised by schema theory as being an important and successful metacognitive reading strategy. When readers question texts, they engage in a type of self-monitoring in attempts to deal with doubt, misunderstanding and uncertainty over the information presented in the text. Part of top-down (reader-based) reading involves ‘P-responses’ (participatory responses) which refer to readers’ preferences for the outcomes of events in narratives. ‘F-emotions’ (fictional emotions) are the empathetic responses that readers have regarding character situations and emotions. Genre comprehension refers to participants’ understanding and awareness of the text’s genre and involves matching prior knowledge of textual conventions to incoming textual information.

Bottom-up processing is concerned with participants’ ability to decode the text to construct a mental representation, and includes such processing as ‘A-emotions’ (aesthetic emotions), which concern readers’ appreciation of textual features and style, ‘questioning of text structure’, which refers to participants’ ability to comment on the way in which the text was written and the stylistic choices of the author, and ‘linguistic analysis’, which relates to comments made by participants on the grammar, syntax, lexicon, and general structure of the text as a whole.
CHAPTER FOUR
RESULTS AND FINDINGS

4.0 Introduction

In this chapter I present the findings based on an analysis of the participants’ written recalls, discussions, and individual responses. The findings are organised into five sections: text 1, text 2, text 3, text 4, and perspectives. Extracts from participants’ written recalls and the discussion in groups are provided to support each of the findings and discussion points.

The participants’ written responses can be broken into three main categories:

1.) Text recalls
2.) Response comments
3.) Perspective-based questions.

There were potentially 285 response entries from the fifteen participants across all four texts: sixty written text recalls, sixty written response comments (one of each per text per participant), and 165 perspective-based questions (eleven per participant) on the general use of the L1 with the L2 (see Appendixes 8 and 9 for response sheet templates). One hundred percent of the text recalls and responses were answered, with ninety percent of the 165 perspective-based questions answered overall (150/165 questions). In total, five percent (15/285) of all written responses were omitted as a result of unprovided data.

4.1 Language choice

Japanese was the overall preferred language of choice for all data (written text recalls and comments, and perspective-based questions). Across all three sections of written data (recalls, responses, and perspective questionnaire), Japanese was employed eighty-two percent of the time (calculated based on the language in which each comment was written), with English the language of choice just eighteen percent. In this chapter, participants’ recalls will be shown in either Japanese with an English translation, or only in English, depending on which language the participant employed for their written response. A bold font will be used to indicate moments of code-switching between languages in one recall comment.
Of the sixty possible text recalls, an average of eighty-four percent were written in Japanese, with an average of sixteen percent written in English (see Tables 4.1 and 4.2 for further details).

<table>
<thead>
<tr>
<th>Group</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>85% (475/559)</td>
<td>15% (84/559)</td>
</tr>
<tr>
<td>Group 2</td>
<td>96% (601/627)</td>
<td>4% (26/627)</td>
</tr>
<tr>
<td>Group 3</td>
<td>76% (535/703)</td>
<td>24% (168/703)</td>
</tr>
</tbody>
</table>

*Table 4.1: Use of Japanese/English in text recalls across all four texts per group.*

<table>
<thead>
<tr>
<th>Text</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July</em>, 88)</td>
<td>89% (378/427)</td>
<td>11% (49/427)</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood</em>, 606)</td>
<td>93% (554/593)</td>
<td>7% (39/593)</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee</em>, 53)</td>
<td>75% (335/449)</td>
<td>25% (114/449)</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites</em>, 910)</td>
<td>80% (344/420)</td>
<td>20% (76/420)</td>
</tr>
</tbody>
</table>

*Table 4.2: Use of Japanese/English in text recalls per text.*

Of the sixty possible response comments, an average of eighty-five percent were written in Japanese, with an average of fifteen percent written in English (see Tables 4.3 and 4.4 for further details).

<table>
<thead>
<tr>
<th>Group</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>67% (307/459)</td>
<td>33% (152/459)</td>
</tr>
<tr>
<td>Group 2</td>
<td>94% (265/281)</td>
<td>6% (14/281)</td>
</tr>
<tr>
<td>Group 3</td>
<td>95% (523/552)</td>
<td>5% (29/552)</td>
</tr>
</tbody>
</table>

*Table 4.3: Use of Japanese/English in response comments across all four texts per group.*

<table>
<thead>
<tr>
<th>Text</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July</em>, 88)</td>
<td>84% (296/352)</td>
<td>16% (56/352)</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood</em>, 606)</td>
<td>83% (266/320)</td>
<td>17% (54/320)</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee</em>, 53)</td>
<td>85% (278/329)</td>
<td>15% (51/329)</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites</em>, 910)</td>
<td>88% (255/289)</td>
<td>12% (34/289)</td>
</tr>
</tbody>
</table>

*Table 4.4: Use of Japanese/English in response comments per group across all four texts.*
Of the 165 possible perspective responses, seventy-eight percent were filled out in Japanese, with twenty-two percent written in English (see Table 4.5).

<table>
<thead>
<tr>
<th></th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective-based questions</td>
<td>78% (804/1034)</td>
<td>22% (230/1034)</td>
</tr>
</tbody>
</table>

Table 4.5: Use of Japanese/English for perspective-based questions.

Table 4.6 below summarises the variations in language use throughout both sections of written responses.

<table>
<thead>
<tr>
<th></th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text recalls</td>
<td>85% (1611/1889)</td>
<td>15% (278/1889)</td>
</tr>
<tr>
<td>Response comments</td>
<td>85% (1095/1290)</td>
<td>15% (195/1290)</td>
</tr>
<tr>
<td>Perspective-based questions</td>
<td>78% (804/1034)</td>
<td>22% (230/1034)</td>
</tr>
<tr>
<td><strong>Average total</strong></td>
<td><strong>83% (3510/4213)</strong></td>
<td><strong>17% (703/4213)</strong></td>
</tr>
</tbody>
</table>

Table 4.6: Summary of the use of Japanese/English in all written response sections.

4.2 Comprehension of the four texts

As stated in Chapter Three, textual comprehension was measured on the basis of meaningful recalls by the participants that showed that the text had been understood. These recalls and responses were analysed based on the extent to which they corresponded with various elements of narrative and expository texts. For example, a comment ‘there is a man alone on a road who is struggling through something difficult’, is assumed to show greater understanding than a comment ‘there is a man’, as it includes related elements in the narrative. Likewise, a recall ‘insects will be eaten in the future to solve the world’s growing population and decreasing food problem’, shows a higher level of comprehension than a comment simply stating ‘insects will be eaten in the future’ as the former comment shows causal connections and links textual elements.

Recalls for texts 1, 2, and 3, all of which exhibit elements of narrative, were analysed according to the extent of each participants’ apparent development of a situation model as outlined by the Event-Indexing Model (Zwaan et al., 1995), including elements of character, perspective setting, actions, events, intentions and causation. Resolutions were added as well as climax and problems as making
up traditional narrative plot structure. Responses to text 4, an expository text, were analysed based on the extent to which recalls relate to the overall text structure, as outlined by Meyer (1975), and the development of a text base (Kintsch, 1988) including references to the macro-propositions and micro-propositions (Kieras, 1985).

Table 4.7 below shows the approximate length of the group discussions for groups 2 and 3 across all four texts, with Table 4.8 displaying the average word counts for each discussion both as a group and individually.

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July</em>, 88)</td>
<td>6 mins 15 secs</td>
<td>5 mins 25 secs</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood</em>, 606)</td>
<td>3 mins 45 secs</td>
<td>5 mins 30 secs</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee</em>, 53)</td>
<td>1 min 10 secs</td>
<td>5 mins 35 secs</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites</em>, 910)</td>
<td>2 mins 45 secs</td>
<td>5 mins 20 secs</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13 mins 55 secs</strong></td>
<td><strong>21 mins 50 secs</strong></td>
</tr>
</tbody>
</table>

*Table 4.7: Approximate length of group discussions for groups 2 and 3 across all four texts.*

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 2 Total</th>
<th>Group 2 Individual average</th>
<th>Group 3 Total</th>
<th>Group 3 Individual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July</em>, 88)</td>
<td>289</td>
<td>58</td>
<td>714</td>
<td>143</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood</em>, 606)</td>
<td>211</td>
<td>42</td>
<td>731</td>
<td>146</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee</em>, 53)</td>
<td>152</td>
<td>30</td>
<td>772</td>
<td>154</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites</em>, 910)</td>
<td>158</td>
<td>32</td>
<td>820</td>
<td>164</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>810</strong></td>
<td><strong>162</strong></td>
<td><strong>3037</strong></td>
<td><strong>607</strong></td>
</tr>
</tbody>
</table>

*Table 4.8: Average word count for each text discussion of groups 1 and 2.*

Table 4.9 below provides a summary of the total recall words per group across all four texts, with Table 4.10 showing the total amount of response words per group across all four texts.
Table 4.9: Summary of the total amount of recall words per group across all four texts.

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July, 88</em>)</td>
<td>77</td>
<td>172</td>
<td>178</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood, 606</em>)</td>
<td>209</td>
<td>144</td>
<td>220</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee, 53</em>)</td>
<td>130</td>
<td>151</td>
<td>168</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites, 910</em>)</td>
<td>123</td>
<td>143</td>
<td>154</td>
</tr>
<tr>
<td><strong>Words in total</strong></td>
<td><strong>542</strong></td>
<td><strong>610</strong></td>
<td><strong>720</strong></td>
</tr>
<tr>
<td><strong>Average words per person</strong></td>
<td><strong>108</strong></td>
<td><strong>122</strong></td>
<td><strong>144</strong></td>
</tr>
</tbody>
</table>

Table 4.10: Summary of the total amount of response comment words per group for all four texts.

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (<em>July, 88</em>)</td>
<td>98</td>
<td>107</td>
<td>147</td>
</tr>
<tr>
<td>Text 2 (<em>Red Riding Hood, 606</em>)</td>
<td>34</td>
<td>150</td>
<td>153</td>
</tr>
<tr>
<td>Text 3 (<em>Dirty Coffee, 53</em>)</td>
<td>97</td>
<td>104</td>
<td>128</td>
</tr>
<tr>
<td>Text 4 (<em>Bug Bites, 910</em>)</td>
<td>41</td>
<td>107</td>
<td>141</td>
</tr>
<tr>
<td><strong>Words in total</strong></td>
<td><strong>270</strong></td>
<td><strong>468</strong></td>
<td><strong>569</strong></td>
</tr>
<tr>
<td><strong>Average words per person</strong></td>
<td><strong>54</strong></td>
<td><strong>94</strong></td>
<td><strong>114</strong></td>
</tr>
</tbody>
</table>

Because each text was specifically chosen to be of a different genre, participants’ responses were analysed on how they responded to each genre as well as how they showed their awareness of each genre throughout the reading and comprehension processes. The number of participants per group who mentioned the specific genre of each text is shown below in Table 4.11.

Table 4.11: Total number of participants who mentioned the textual genre in their recalls/response comments.

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (poem)</td>
<td>2/5 (40%)</td>
<td>2/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Text 2 (narrative)</td>
<td>2/5 (40%)</td>
<td>2/5 (40%)</td>
<td>4/5 (80%)</td>
</tr>
<tr>
<td>Text 3 (joke)</td>
<td>1/5 (20%)</td>
<td>1/5 (20%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Text 4 (expository)</td>
<td>1/5 (20%)</td>
<td>2/5 (40%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td><strong>Average total percent</strong></td>
<td><strong>6/20 (30%)</strong></td>
<td><strong>7/20 (35%)</strong></td>
<td><strong>10/20 (50%)</strong></td>
</tr>
</tbody>
</table>
The participants’ written recalls and responses were coded based on elements of the textbase, elements of the plot, constituent elements of a situation model, and references to both top-down and bottom-up processing skills. Tables will be provided at the start of each new text analysis throughout this chapter to summarise the groups’ mention of textual features and reading conventions. Tables 4.15, 4.18, and 4.21 are based on features in Zwaan et al.’s (1995) Event-Indexing Model, as well as a number of other elements involved in the construction of a situation model for texts 1, 2, and 3. Table 4.24 is based on Meyer’s (1975) outline of the overall surface structure and textbase (Kintsch, 1988) necessary for the successful comprehension of expository texts (text 4). It is important to note that these tables merely identify how many participants per group included the features in their written recalls. It does not include details as to the extent to which each feature was discussed. These details are included in the discussion that follows for each individual group. Tables 4.15, 4.18, and 4.21 show twenty features and reading conventions involved in the successful construction of a situation model that were used in the evaluation of recall and response comments to texts 1, 2, and 3. Table 4.24 shows the textual features and reading conventions involved in the successful comprehension of expository texts, and was used in the evaluation of comprehension responses to text 4 (see Chapter 3.4.1 for more details). Participants’ recalls and responses were coded based on how many times each textual feature and/or reading convention was mentioned. If all participants had mentioned all features and reading conventions, there was the potential for 95 elements to be mentioned for text 1, 100 for text 2, 95 for text 3, and 60 for text 4. Table 4.12 below summarises the total number of mentions of specific textual features and reading conventions per group for each text. Overall, group 1 mentioned an average of 28% of the basic conventions in their recalls of all four texts, with group 2 slightly higher at 42%, and group 3 the highest at 58%, suggesting the greatest engagement with all four texts as a whole and, we posit, the greatest comprehension.

<table>
<thead>
<tr>
<th>Text</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text 1 (Poem, 88)</td>
<td>26/95 (27%)</td>
<td>38/95 (40%)</td>
<td>52/95 (55%)</td>
</tr>
<tr>
<td>Text 2 (Narrative, 606)</td>
<td>28/100 (28%)</td>
<td>41/100 (41%)</td>
<td>55/100 (55%)</td>
</tr>
<tr>
<td>Text 3 (Joke, 53)</td>
<td>28/95 (29%)</td>
<td>38/95 (40%)</td>
<td>55/95 (58%)</td>
</tr>
<tr>
<td>Text 4 (Article, 910)</td>
<td>15/60 (25%)</td>
<td>29/60 (48%)</td>
<td>39/60 (65%)</td>
</tr>
<tr>
<td><strong>Average percentage</strong></td>
<td><strong>28%</strong></td>
<td><strong>42%</strong></td>
<td><strong>58%</strong></td>
</tr>
</tbody>
</table>

Table 4.12: Summary of the total number of textual features and reading conventions included in participants’ text recalls across all four texts.
4.2.1 Text 1 (July, 88)

Text 1 was a poem entitled ‘July’ by Peter Davison (July, 88) (See Appendix 4). For the purpose of this study, participants were not provided with the title and were therefore free to interpret the text however they saw fit to do so. Despite the fact that not one participant realised that the poem was referring to events in a specific month, they each analysed particular elements and individual meanings to develop their own unique situation models as they attempted to comprehend the text. The results of which are as follows.

Table 4.13 below summarises the total number of words that were written by each group for their recall of text 1, with Table 4.14 showing the total number of words per group for their response comments of text 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>77</td>
<td>15</td>
</tr>
<tr>
<td>Group 2</td>
<td>172</td>
<td>34</td>
</tr>
<tr>
<td>Group 3</td>
<td>178</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 4.13: Total number of words for written recalls per group for text 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>98</td>
<td>19</td>
</tr>
<tr>
<td>Group 2</td>
<td>107</td>
<td>21</td>
</tr>
<tr>
<td>Group 3</td>
<td>147</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 4.14: Total number of written response words per group for text 1.

Table 4.15 below provides a summary of the number of participants in each group who mentioned individual textual features and specific reading conventions involved in the construction of the situation model for text 1.
<table>
<thead>
<tr>
<th>TEXT 1</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constituent elements of the textbase:</td>
<td></td>
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<tr>
<td>Macro-propositions</td>
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<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
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<tr>
<td>Micro-propositions</td>
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<tr>
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</tr>
<tr>
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<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
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<tr>
<td>Causality (causal links)</td>
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<tr>
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<tr>
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<tr>
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<tr>
<td>Bottom-up processing including:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of A-Emotions (craft of author recognised)</td>
<td>2/5 (40%)</td>
<td>1/5 (20%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Questioning of text structure</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Linguistic analysis</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Total frequency of features and reading conventions mentioned:</td>
<td>26/95 (27%)</td>
<td>38/95 (40%)</td>
<td>52/95 (55%)</td>
</tr>
</tbody>
</table>

Table 4.15: Participants’ mentioning of textual features and reading conventions for text 1.
4.2.1.1 Group 1

With ninety-five and 101 less recall words than groups 2 and 3 respectively, Group 1 showed limited comprehension for text 1 overall. Participants were unable to recall much detail of what would be expected to make up the situation model of the text, with one participant even stating:

P2:  *Sorry I can’t remember.*

The majority of the recalls provided were simple phrases of one or two words recalling subject matter:

P1:  *Dogs howling, cursing climate, dark afternoon.*

Some recalls were made concerning content:

P3:  Tenki ni tsuite…

*It’s about the weather…*

Such comments display little comprehension beyond the basic gist of the text.

The most commonly recalled narrative element related to setting, although character was also briefly touched on in two comments:

P5:  *A man is walking alone in a dark place.*

Here, the character is shown in a setting, but only one participant referred to the problem faced by the character, stating that:

P3:  Tochū de mizu bukure to iu hyōgen ga aru ga, hikitsuke de kurushindei sou.

*There was the expression ‘blister’ halfway through, and it seems they were suffering from a burn.*

Three out of five participants mentioned the climax in the text (praying to God), however no connection was made between the problem and the climax. Few causal links were made by the readers and there was little perception about the perspective or intention of the character.

Recall comments on setting included simple statements:

P5:  *Hot afternoon. No rain. [...] in a dark place.*

As well as sentences with more detailed information which shows a causal connection between the two events:

P3:  Kurai gogo de ame ga furanai, taiyō ga sashitekita.

*Dark afternoon without rain falling, the sun was shining.*
No attention was given to the metaphors associated with these elements of setting. For example, while the comment *the sun was shining* illustrates some attempt at making inferences and thus some top-down processing, it shows very little understanding of the original text sentence: “Intent on conquest, the sun presses its attack”, in which the sun has been given animate characteristics to emphasise the threat it poses to the character. Likewise, comments such as the following that simply state the existence of objects do not fully reflect an understanding of the implications in the poem and the links between these objects/animals and the main character:

P2: *Swallow, three-dog.*

In this case, the essence of the original sentences (“Swallows like knives carve at the thickening air”, and “Like a three-legged dog howling curses at the climate”), which emphasise the difficult plight of the character, was not recalled. Another point that should be made is that only certain aspects of the setting were touched on. For example, all five participants recalled the fact that the scene was ‘dark’ with four out of five recalling the ‘lack of rain’, however not one of them recalled (and thus perhaps did not understand) the sense of ‘battle’ that was created (e.g. “Intent on conquest”; “presses its attack”; and, “defeated by the weather’s bludgeon” etc.), or the fact that the temperature had lead to the character’s suffering (“the sun presses it’s attack”; “I swab the sweat from my blistering hide”; “defeated by the weather’s bludgeon”, etc.). This again illustrates a lack of comprehension of the character’s perspective or possibly a lack of P-responses (participatory responses) and F-emotions (fictional emotions) which are common amongst skilled readers when reading narratives (see Allbritton & Gerrig, 1991).

Some attempts were made to comment on the textual language (i.e. using bottom-up processing), as is clear in comments including:

P3: Kurai imeeji.

_Dark imagery._

P4: Kono tekisuto wa kurakute yūutsu na funiki wo tadayowaseteiru.

_This text is dark and has a depressing atmosphere._

This suggests that the participants made some of the inferences that readers were expected to make when reading this text, but in general, comments about the text showed little insight into the textual choices made by the poet. Overall, participants in group 1 found the text difficult to understand, with comments such as the following in their response comments:

P1: *I don’t understand anything.*
P2: *It was so hard because I can’t understand the meaning of whole sentences.*

P5: *It was very difficult. I couldn’t really understand a lot of the words.*

Two out of five participants in group 1 showed some awareness of the fact that text 1 was a poem, but there was little certainty in their recall statements. There was no further indication that participants recognised or acknowledged the type of text they were reading, but for the following two response comments, and thus it is unlikely that the genre of the text had any affect on their recall responses or comprehension of the text as a whole.

P1: *So abstract. Boring like poetry.*

P2: *I wondered it is something like a poem?*

### 4.2.1.2 Group 2

Group 2 showed a significantly greater understanding of the text in comparison with group 1 with an average of nineteen words more per person in their written recalls. Despite this, much like group 1, many found the text difficult to comprehend overall, as reflected through response comments such as:

P6: *Totemo yomi tsurakatta.*

*Very hard to read.*

P9: *Hijyō ni jojyō teki na hyōgen ga takusan ari, rikai suru ni wa hijyō ni kibishii mono ga atta.*

*There were a lot of words I was not familiar with, which also made it difficult to understand.*

The majority of the recall comments contained detail, with many making inferences beyond the mere surface level of the text; for example:

P6: *Hissha wa osoraku taihen na jyōkyō no naka de ikiteita.*

*The author was perhaps living in difficult circumstances.*

A number of narrative elements were touched on to a greater extent than in group 1. For the element of setting, recall comments ranged from simple statements referring to the weather:
P6: *Tenki no ii hi.*  
*It was a nice day.*

P10: *Tenki no you na koto ga kaiteatta.*  
*There were things about the weather written.*

To more complex sentences recalling the scene in its entirety:

P8: *Totemo atsui gogo (ame wa futteinai). Tsukarehateta otoko ga iru. Sora ni wa tsubame ga ko wo kaite tondeiru. [...] 3 pon ashi no inu ga hoenoshiru.*  
*Very hot afternoon (not raining). There is an exhausted man. There is a swallow in the sky flying in an arc. [...] A three-legged dog barks and curses.*

Other attempts were made to construct meaning by determining (or trying to determine) causal links.

P7: *Seifuku no mokuteki.*  
*The purpose of a conquest.*

Much like in group 1, the human characteristics given to objects (such as the sun, swallows, etc.) were not mentioned, perhaps suggesting a lack of understanding about the overall oppressiveness of the scene. However, for the element of character, recall comments not only reported the character’s simple actions, for example:

P9: *Aru hito ga taiyō ga sansan to furisosogu naka de michi wo aruiteiru.*  
*A person is walking down a road beneath the brightly shining sun.*

But also reflected the tiring predicament of the main character:

P6: *Furafura aruiteiru hito.*  
*A staggering person was walking.*

(Using a form of a verb from the text - “stagger”).

P8: *Tsukarehateta otoko ga iru.*  
*There is an exhausted man.*

(Making an inference and thus adding to the original text).

This suggests that participants had some comprehension of the character’s difficult state and the problem he/she was facing throughout the text, and were making appropriate inferences.
Three out of five participants mentioned the situation in more detail with inferences such as:

P7: Nō ga ugokanai.
    *Head doesn’t work.*

P8: Totemo atsui otoko nō n wa umaku ugokanai.
    *A very hot man’s brain doesn’t work.*

P9: Atama mo ugokunakunari, ichi byō ga tokō mo naku nagaku kanjiteiru.
    *His head stops working, and one second feels like a long time without travel.*

However, no great understanding was reached regarding the conflict in the text, with no indication that participants understood the severity of the character’s difficult situation (e.g.: “I swab the sweat from my blistering hide”; “I stagger beneath the weight of the day”; “defeated by the weather’s bludgeon”, etc.).

In regards to the climax within the text, four out of five participants mentioned the character’s prayer to God, including simple statements such as:

P6: Sukui wo motomerte inotteiru.
    *Praying to God seeking rescue.*

P8: Otoko wa katate wo agete kami ni noru. Unmei wo domorinagara hanasu.
    *The man raised one hand to pray to God. The man says his destiny as he stammers.*

As well as more complex sentences containing intentional motives for his actions with a link back to the overall problem - indications that causal links were being made by the readers and character intentions were being considered.

P9: Saigo ni wa kami ni nori wi agete, kono kutsū kara manugareru you ni inotteiru.
    *In the end, he offers a prayer to God, and prays that he can escape from this pain.*

Response comments about the text showed signs of higher order thinking skills with many looking at the potential meanings beneath the text surface. However, misinferencing often resulted in miscomprehension. For example, the concept of ‘Christianity’ was raised by a number of participants with comments such as:
Despite the fact this is most likely not the author’s true intention for the text, such comments suggest that participants were thinking beyond what was written in the text into the reasons why it was written, by whom, and for what kind of audience, all of these being indications of effective reading. Other signs of misunderstanding appeared in their recalls. For example:

P7: Inu ga ni nin san kyaku shi nagara, hoeru mitai ni yoromeita.

*A dog is barking whilst staggering like running a three-legged race.*

In this case, the participant has confused the phrase “three-legged race” with the concept of a ‘three-legged dog’. This may have been due to the use of an electronic dictionary.

Group 2’s discussion of text 1 ran for approximately six minutes and fifteen seconds, the longest out of all discussions, however it also contained a large amount of pauses. The group discussion added additional elements to the analysis of some concepts within the text. For example, the hot setting:

P10: *I think this text wants to say there is very hard very quite serious temperature and climate happened in this text.*

As well as the character’s exhaustion:

P7: *I think its a hot day and writer or people are very tired.*

P8: *I think there is someone who is very tired because of temperature and climate.*

This suggests that participants have causally linked the events to infer that the high temperature has lead to the character’s exhaustion and therefore suffering.
However, many of the elements discussed by the participants did not make it into their final written recalls. For example, when one participant asked the group for the meaning of “weight of the day”, two others replied with the following:

P8: *Because the day was so hard, so the day is too heavy...*

P7: *...feeling like a kinda pressure... The sun presses its attack, kinda pressure to his body.*

Despite the fact that neither of these two concepts were mentioned in the participants’ individual written recalls, they suggest, a greater understanding of the character’s difficult situation and the struggle he/she is facing throughout the text. The perspective of the character is thus touched on in group 2 in ways that it was not in group 1.

Participants in group 2 very briefly discussed their thoughts on the genre of text 1, making connections with the concept of Christianity. For example, in the following discussion:

P7: *I think it’s kind of a diary?*

P6: *Or a poem?*

P7: *Oh yeah!*

P8: *A poem about Christian?*

P7: *Oh yeah- from Christian book. So that’s why it’s quite hard expressions in this text.*

Although participants have once again made misinferences about Christianity, it is important to note that, through discussion, P6 has aided the overall comprehension of P7 by providing him with yet another genre perspective from which to view the text. The fact that P8 brings the discussion back to Christianity, followed by P7’s comment on the Christian book, suggests that participants gave little attention to the poetic genre of the text, and as such it may not have had a marked influence on their comprehension of the text as a whole. On the other hand, it may also have been the case that participants (P6, P8, and perhaps P7) accepted the fact that the text was a poem and continued to read and comprehend it in that way. The results are unclear based on the participants’ recalls alone.

4.2.1.3 Group 3

Group 3 exhibited similar results to group 2 in the average number of recalls words per person, with the most detailed recall of elements from the text as a whole. Much like in groups 1 and 2, participants found the text difficult overall, as reflected in response comments such as:

P12: Tango mo bunpō mo muzukashiku, naiyō wo rikai suru no ga taihen datta.

*The vocabulary and grammar were difficult. Understanding the content was tough.*
P15: *This was a difficult text to understand.*

However, despite this fact, a number of narrative text elements were covered in great detail. One participant included a number of narrative elements in detail all at once, including elements of character, setting, the situation, the climax, character action and intention, evidence of F-emotions and P-responses, and causal links.

**P14:**  
Hi ga shizumu chū, watashi (shujinkō) wa aruku. Kuraku nareba naru hodo, taiyō wa kagayakidasu. Hane no tsubame ga naifu no yō ni surudoku, sora wo saku. Atsusa no naka, watashi wa hitori ase wo nuguu. Kami ni jibun ga aru koto wo shimesu tame ni, ryōte wo sore e to ageru ga, sore mo mata kami e no munashi inori ni suginai no de aru.  

_As the sun sets, I (the hero) walk. The darker it gets, the sun starts to shine. One swallow cuts the sky sharply like a knife. In the heat, I wipe my sweat alone. To show to god that I exist, I raise both hands to the sky, but that is nothing more than an empty prayer._

For the element of setting in general, basic comments were prevalent, but a number of comments suggested a more detailed comprehension with reference to the weather, atmosphere, and objects all in one, for example:

**P13:**  
The weather is hot, but the sky is dark. Swallows are in the sky, and they are like cutting through the sky.

Group 3 exhibited a number of setting characteristics that neither groups 1 or 2 referred to, perhaps suggesting a greater understanding of the text overall. Firstly, comments made by participants in group 3 showed some insight into the unpleasant setting that was depicted in the text, as shown in responses suggesting inferences had been made, such as:

**P11:**  
Tenki ga omokurushii.

_The weather is heavy._

**P12:**  
Ame ga futteinai ga, totemo omoi yōsu.

_It’s not raining, but it is a heavy situation._

The concept of a ‘heavy atmosphere’ is an important element in the setting of the text, although no reference was made to the related line “I stagger beneath the weight of the day”.
Also in contrast to groups 1 and 2, participants in group 3 showed evidence of connecting various narrative elements through such comments as:

**P11:** Yaketsuku hodo atsui kara, ase wo nuguu ni itatta.

*It's scorching hot, so it lead to him to wipe his sweat.*

This comments suggests a causal connection between setting and character elements, which shows that participants were thinking about the text as a whole and the way in which various textual features related to one another.

Recall comments once again included simple statements of basic narrative elements of character, action, and setting:

**P12:** Nanka ni mukatte aruku hito no byōsha.

*A description of a person walking somewhere.*

As well as statements including the character’s perspective:

**P15:** Ase wo kaiteiru hito wa doko ka e aruiteiru.

*A sweating man is alone walking somewhere.*

In P14’s comprehensive comment above, which includes a number of narrative text elements together, it is interesting to note that he uses the word ‘I’ to refer to the character: “*I (the hero) walk [...] I wipe my sweat alone. To show to god that I exist, I raise both hands to the sky, but that is nothing more than an empty prayer*, recognising the persona’s voice in the poem. This shows not only an understanding of the difference between author and persona, but also that this reader understands the nature of F-emotions (empathising with a character’s situation and feelings). Further recall comments made by other participants on the perspective of the character reflect the character’s pain and suffering:

**P12:** Mizubukure ga dekiru hodo [aruiteiru].

*[walking] to the extent that blisters have formed?*

**P15:** The man is suffering from something, and he has blisters.

This concept relates causally to the heat experienced by the character.

Likewise, regarding the final climax in the text, participants were able to recall the act of praying:

**P14:** Ryōte wo sore e ageru.

*I raise both hands to the sky.*
P15: Kami ni inoru.

*He prays to god.*

However no comments were made on specifically how this relates to the the character’s problem overall. There is evidence participants had an understanding of character in through the comment:

P14: Kami sama ni jibun ga oru koto wo shimesu tame ni, ryōte wo sore e ageru.

*To show to god that I exist, I raise both hands to the sky.*

Much like in group 2, the topic of religion surfaced in group 3.

P13: ‘*Pray for god*’ ga shūkyō poi.

‘*Pray for god*’ seems religious.

P15: Shūkyō to no kankei ga aru rashii.

*It seems somehow related to religion?*

A similar misinterpretation, made by P7 in group 2 concerning the “three-legged dog” of the text, is also made by P12 in group 3, who recalls it as “three dogs”.

Perhaps the comment that is most accurate amongst all three groups and the closest insight into the real point and topic of the text was the following:

P15: *Maybe [it is related] to summer because of the heat and struggling.*

This response comment suggests the participant has drawn upon his background knowledge, connected various narrative elements whilst reading, and linked them together to infer the overall topic of ‘summer’.

It is worth noting that, unlike in groups 1 and 2, participants in group 3 appeared to be more inclined to question the text, for example:

P11: Demo nani kara nigereru tame?

*But what is he running away from?*

They also remarked on the grammatical structure.

P11: Setsuzokushi ya dōshi no tsunagari, kireme ga tsukamitsurai node, naiyō haaku ga muzukashii.

*It was difficult to grasp the link and break between conjunctions and verbs, so the content was difficult.*
Group 3’s discussion of text 1 ran for approximately five minutes and twenty-five seconds with very few pauses throughout. Much as with group 2, fundamental elements of narrative text were covered in greater detail, inferences were made, the overall structure of the text was commented on and interpreted, comments were made on the changing temporal setting and causal and other textual links were made. For example:

P11: Saisho wa tenki toka sou iu kanji dakedo, saigo no hou ni mukatte dandan, nanka fukai kanji ni nattekuru.

*The subject is the weather etc., but as it gets towards the end, it gradually develops a deeper feeling.*

It was through discussion that participants came to speculate on the literacy policy of the text.

P14: Kare wa kami e inoru tameni kore wo kaiteiru kamoshirenai. Sore tomo, futsuu ni natsu no keshiki wo noberu tame toka?

*Maybe he [the author] is writing this to pray to God? Or just to describe the scenery in the summer or something?*

One of the more interesting points that emerged in the discussions was the fact that participants often made use of translation as a technique for comprehending particular aspects of the text.

P15: ‘Hide’ tte dono fū ni yakusureba ii no ka wakaranai.

*I don’t know how I should translate ‘hide’?*

P14: Ase wo dou yatte suru darou?

*I wonder how we should translate ‘sweat’?*

Some even discussed the meanings of English words in their native Japanese language.

P13: Blister tte mane deshō? Mizubukure toka?

*A blister is ‘mame’ right? Or ‘mizubukure’?*

P14: Mame?

*I think it’s mame?*

P12: Nanka mizubukure mitai-

*Hmm probably more like ‘mizubukure’.*

P14: A mizubukure, hontō da!

Oh, mizubukure, that’s right!
However, the use of translation to aid comprehension was not always successful. For example, in the case of translating the word ‘hide’ (from the line “I swab the sweat from my blistering hide and walk”), the following misinference arose:

P14:  **Hide** wo shirabetara, kakurebasho tte honyaku saretemasu ne.

*When you look up ‘hide’, it translates as ‘hiding place’.*

Believing this to be the correct meaning of the term, the group then inferred that the character was walking in a ‘really hot hiding place’: a clear misinference.

As in their individual written recalls, participants also referenced to linguistic elements of the text, discussing sentence parts and word functions. For example, when trying to comprehend the meaning of the word ‘hide’, the following comment was made:

P14:  Jibun no kawa no hou ka, sore tomo kore dōshi?

*I mean, is ‘your own skin’ better, or is this a verb?*

There were again times, however, when linguistic focus also resulted in misinference. For example, when discussing the word ‘walk’:

P14:  **Walk** mo nanka meishi poku desu ne, tabun?

*I mean, ‘walk’ seems a bit like a noun too, maybe?*

P11:  Meishi ka? Dōshi janai no ka?

*So it’s noun, not a verb?*

P14:  Tabun.

*Maybe.*

In this context, the word ‘walk’ was in fact being used as a verb, but in the discussion, participants misconstrued this and formed an incorrect inference.

Participants in group 3 also provided response comments on the poetic genre of the text, based on particular elements within the text. For example:

P11:  Saisho no 3 gyō hodo wa owari ga in wo fundeiru yō na ki ga shite, shi wo yondeiru kanji ga shita.

*I thought the ending of the first 3 lines rhymed so I felt like I was reading a poem.*

P12:  Kono tekisuto wa shi wo sōzō saseru mono de atta.

*This text made me imagine a poem*—
P14: Kono bunshō wa osoraku shi de arō kara, nakanaka imeeji wo omoiukabe nikui, Shikashi de aru kara koso, yondeiru mono wa kaishaku ni isshōkenmei ni nareru no darō.

This text is most likely a poem, so the imagery is difficult to picture. But because of that, the person reading it can do their best to interpret it.

Here, P11 has based her opinion on the fact that elements within the first 3 lines of the text rhymed; a characteristic of poetry. This conclusion was undoubtedly the product of her background knowledge of poetry (textual competence and literary competence) combined with the elements within the text that she had just read: a definite sign of effective reading. Response comments by P12 and P14 also suggest to a certain extent that they too have drawn on their background knowledge of poetry to claim that text 1 is most likely a poem. However, as in both groups 1 and 2, no one in group 3 claims that the text is a poem with certainty, instead using hedges such as ‘I felt like I was reading a poem’, ‘it made me imagine a poem’ and ‘most likely a poem’, rather than assertive comments such as “it was a poem”.

4.2.2 Text 2

Text 2 was a parody of the classic short story ‘Little Red Riding Hood’ (Red Riding Hood, 606, see Appendix 5) in which certain aspects of the narrative had been modified to reflect modern issues of sexism and feminism, and were thus different from participants’ expectations of the original storyline.

Table 4.16 summarises the total number of words that were written by each group for their recall of text 2, with Table 4.17 showing the average word count for their response comments. On average, participants across all three groups showed a twenty-five percent increase in the amount of recall words when compared with the recalls to text 1, perhaps suggesting that text 2 was easier to recall as a whole. However, this might simply be because text 2 was longer than text 1.

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<tr>
<td>Group 1</td>
<td>209</td>
<td>41</td>
</tr>
<tr>
<td>Group 2</td>
<td>144</td>
<td>29</td>
</tr>
<tr>
<td>Group 3</td>
<td>220</td>
<td>44</td>
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</table>

Table 4.16: Total number of words for written recalls per group for text 2.
Table 4.17: Total number of written response words per group for text 2.

Table 4.18 below provides a summary of the number of participants in each group who mentioned individual textual features and specific reading conventions involved in the construction of the situation model for text 2.

<table>
<thead>
<tr>
<th></th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>34</td>
<td>7</td>
</tr>
<tr>
<td>Group 2</td>
<td>150</td>
<td>29</td>
</tr>
<tr>
<td>Group 3</td>
<td>153</td>
<td>30</td>
</tr>
<tr>
<td>Textual Feature</td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Constituent elements of the text-base:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macro-propositions</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Micro-propositions</td>
<td>1/5 (20%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td><strong>Constituent elements of a situation model:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Setting</td>
<td>2/5 (40%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Causality (causal links)</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Events and situations</td>
<td>4/5 (80%)</td>
<td>4/5 (80%)</td>
</tr>
<tr>
<td>Character actions</td>
<td>4/5 (80%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Character intentions and perspective</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td><strong>Constituent elements of the plot:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Climax</td>
<td>1/5 (20%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Resolution</td>
<td>2/5 (40%)</td>
<td>4/5 (80%)</td>
</tr>
<tr>
<td><strong>Top-down processing including:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of P-responses</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Evidence of F-Emotions</td>
<td>1/5 (20%)</td>
<td>4/5 (80%)</td>
</tr>
<tr>
<td>Inferences beyond the surface level</td>
<td>1/5 (20%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Personal connection/autobiographical links</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Speculation about meaning in the form of questions</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Genre comprehension</td>
<td>2/5 (40%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td><strong>Bottom-up processing including:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of A-Emotions (craft of author recognised)</td>
<td>2/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Questioning of text structure</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Linguistic analysis</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td><strong>Total frequency of features and reading conventions mentioned:</strong></td>
<td>28/100 (28%)</td>
<td>41/100 (41%)</td>
</tr>
</tbody>
</table>

Table 4.18: Participants’ mentioning of textual features and reading conventions for text 2.
4.2.2.1 Group 1

Interestingly, group 1 showed a total of 209 words for their written recalls, sixty-five more than the 144 of group 2. However, this can be attributed to one participant in particular whose comprehensive recall of the entire text consisted of 147 words in total. The remaining four participants in the group recalled an average of just sixteen words each.

Much like with text 1, many of group 1’s recall comments text 2 lacked elements of a developed situation model, with comments merely mentioning a main character within the narrative (e.g. Little Red Riding Hood, wolf, wood cutter, Grandma) or recalling the topic, for example:

P2: **Fruit** wo motteitta no wa obaachan no guai ga warukatta tame de wa nai. Obaachan wa mori no **edge** ni sundeita. *It was dangerous to enter the woods.*

*Taking the fruit was not for grandma’s bad health. Grandma lived on the edge of the forest. It was dangerous to enter the woods.*

This is a common phenomena known as topic-comment structures in which the topic of a sentence is followed by comments on the focus of the topic itself (den Dikken, 2005). However, in this case it does not necessarily suggest a deep comprehension on the whole, as no links are made on the textual elements.

As stated above, P4's nine-sentence recall consisting of 147 words (seventy-one percent of the group’s total recall word count) showed some detail regarding a number of narrative elements:

P4: Shōjyo ga hahaoya ni obaachan no tokoro e kudamono wo todokeru you ni onegai sareta. Sono obaachan wa kenkou ni mondai ga aru wake de mo naku, genki datta. Shōjyo wa kiken na mori no naka e hitori de otsukai ni itta.. Sono michi no tochū ōkami ni deai, mori wo shōjyo ha hitori de aruku no wa kiken da to chūkoku shita. Shikashi, shōjyo wa sono chūkoku wo mushi shita tame, hamidashimono no ōkami wa sakimawari shi, obaasan wo tabeta. Shōjyo wa ie ni hairi, obaasan ni narisumashita ōkami to sōgū shi, odoroku to tomo ni ōkami ni osowareru. Shōjyo no sakebi wo kiita tōrisugari no hito ga nanigoto ka to ie ni tobikomu. Shikashi, shōjyo wa “watashi tachi no mondai wo watashi tachi ga kaiketsu demonai to omou no ka” to isshō suru. Sono kotoba wo kiita obaachan ga ōkami no kuchi no naka kara tōjyō shi, shōjyo, obaasan, ōkami wa sono ato kyōzon suru koto to natta.

(1) A girl is asked by her mother to take fruit to her Grandma. (2) Her grandma had no problems with her health, and was well. (3) The girl went into the dangerous forest on an errand by herself. (4) Halfway along the road, she met a wolf who warned her that it
was dangerous for a girl to walk alone in the woods. (5) However, because the girl ignored that warning, the misfit wolf took a shortcut to Grandma’s house and ate her. (6) The girl entered the house, and she was attacked by the wolf disguised as grandma. (7) A passing person who heard the girl’s screams burst into the house wondering what was going on. (8) However the girl asked “do you think we can’t solve our own problems”? (9) Hearing these words, Grandma appeared from within the wolf’s mouth, and she lived with the girl and wolf happily every after.

In this comprehensive recall, the learner has chosen to focus on the characters of the story to recall the text, and the narrative element of character is thus reflected throughout all nine sentences to varying degrees and through differing character perspectives (Little Red Riding Hood, the wolf, Grandma, and the passing woodcutter to an extent). This evidently shows that the reader understands the nature of F-emotions and is able to switch between characters’ perspectives during the comprehension process. For the element of setting, only sentence (3) suggests some detailed insight into a location within the narrative, i.e. that the forest was dangerous, which is also confirmed by the wolf in sentence (4). Other settings such as the Grandma’s house are mentioned very briefly in sentences (5), (6), and (7). However, no detail is provided, perhaps suggesting the reader’s lack of A-emotions for this particular reading. Likewise, there are numerous sequences of problematic events within the narrative that participants may have drawn attention to, for example, Red Riding Hood’s initial run-in with the wolf and her anger towards his sexist remarks, the wolf eating Grandma, the wolf attacking Red Riding Hood upon arrival at the house, and her anger at the perceived sexist comments of the woodcutter who comes to save her. Whilst P4’s recall draws attention to each of these problems individually (in sentences (4), (5), (6), and (8) respectively), very little detail is given to explain why the problems have arisen or how they are linked to the underlying topics of sexism and feminism, nor are any causal links made between the problems themselves. This suggests that the participant is viewing the text on the surface level, possibly without a deeper understanding of the meaning behind the events and their relation to one another. This lack of understanding, or low level of recall ability and lack of F-emotions - it is difficult to determine which is further displayed in the learner’s recall of the climax in the narrative, in which he provides the following recall comment:
Grandma appeared from within the wolf’s mouth, and she lived with the girl and wolf happily every after [sentence (9)].

This comment omits one of the most defining moments in the text in which the Grandma cuts off the woodcutter’s head for his sexist remarks against women - a significantly different ending from that of the original storyline. This again suggests the reader’s lack of understanding of the characters’ motives in relation to the overall text, and the way that the plot has been altered to reflect these issues. Likewise, the resolution in which Red Riding Hood, Grandma, and the wolf live together happily ever after is recalled in bare outline only with no reference to the “alternative household based on mutual respect and cooperation” mentioned in the last line of the text. Furthermore, despite the above-mentioned elements, there is no evidence that the reader has a temporal view of the text. Sentences in the above comment display very little perception of the passage of time between events, for example:

(5) the misfit wolf took a shortcut to Grandma’s house and ate her. (6) The girl entered the house, and she was attacked by the wolf disguised as grandma.

In these two sentences, the learner has failed to suggest any time passing between when the wolf takes a short cut to Grandma’s house and eats her, and when Red Riding Hood later arrives at the house, despite the fact that these two events occur separate from one another. Having said that, it must be pointed out that, because participants were providing a recall of the text as a whole, they may be expected to focus on the main propositions of the narrative, and consequently the general lack of temporal elements throughout the group does not necessarily indicate a lack of understanding of the elements at work in the text.

It is important to note, however, that this was only one participant’s individual recall, and as such it cannot be counted as a representative for the entire group. The remaining four participant’s comments were shallow and, particularly given that all participants knew the originally storyline beforehand, comments were lacking not only in detail but also in a number of narrative elements all together. For example, for the element of character, recalls centred on Grandma rather than on the
main protagonist, Little Red Riding Hood (perhaps suggesting a lack of F-emotions) with comments such as:

P2:  Obaachan wa mori no edge ni sundeita.
*The Grandma lived on the edge of the forest.*

P4:  Obaachan wa kenkou ni mondai ga aru wake de mo naku, genki datta.
*Grandma had no problems with her health, and was well.*

Interestingly enough, no comments were made about the feminist attitudes of either Little Red Riding Hood or the Grandma, as portrayed in this version of the story, suggesting either a relatively large oversight in the recalls, or a lack of comprehension of the parody.

Recall comments regarding setting were relatively basic as above (P2). However, one particular comment suggesting the danger of the forest for women might possibly be related to the notion of feminism as it suggests that the forest is dangerous to the girl, although this is not entirely clear:

P4:  Shōjyo wa kiken na mori no naka e hitori de otsukai ni itta.
*The girl went into the dangerous forest on an errand by herself.*

Only one participant recalled the narrative’s climax:

P3:  Saigo ōkami no onaka tobidashitekita obaachan ga kikori wo kite shūryō.
*At the end the grandma who jumped out from the wolf’s stomach cuts the woodcutter.*

However, even this is lacking in causal connections, and no mention is made of the sequence of events that had lead to such an outcome. This suggests that the readers have failed to develop a detailed situation model of the text overall, instead focusing on the surface level details and remembering isolated words from the text.

Only two out of five participants in group 1 recalled the conclusion to the text:

P4:  Shōjyo, obaachan, ōkami wa sono ato kyōzon suru koto to natta.
*She [Grandma] lived with the girl and wolf happily every after.*

P5:  Saigo ni minna wa naka yoku kyōryoku wo shinakara ikiteiku.
*In the end, everyone lives happily together.*
A further comment by a third participant suggests that, although the participant was attempting to look into the underlying reasons behind the event, she, and possibly others too, were unable to link the ending to the overall theme of the text as a whole:

P4: Nande ökami to obaachan, shōjyo ga naka yoku natta no ka rikai dekinai.

_I couldn’t understand why the girl, Grandma and the wolf became friends and lived together._

Having said that, aside from the construction of very basic situation models by the majority of the participants in the group, there were some promising signs of more effective comprehension and meaning construction.

P3: Tochū made akazukin.

_Until half way it was Little Red Riding Hood._

P5: Tochū de kawattekita. Futsuu no story de wa nai.

_It changes halfway though. [...] It is not the normal story._

Such response comments suggest that the readers were using their background knowledge to make connections between the text and the original story. They were relying, in other words, on their intertextual knowledge. Other response comments also identified the underlying topic of sexism, for example:

P4: Feminisuto teki na shuchō ga kakusareteiru no de wa to omotta. Ōkami no tokoro kara wa jakusha mo fukumareru to omou.

_I think there was a hidden feminist assertion, and from the wolf’s position weak people were included too._

This suggests that the learners were drawing upon top-down reading skills and looking beyond the mere surface level of the story into the deeper, underlying implications, and were making connections between textual elements and between the text and their own background knowledge, all of which are important skills in effective reading.

P1: Danjo byōdō no byōsha de yomittsurai.

_The gender equality description was hard to read._

P5: The sexism topic is quite hard, so sometimes the words were difficult for me.
There was also evidence that readers were predicting what may happen in the text:

P2: Keeping reading didn’t make me stressed and I could guess the outcome.

This is perhaps due to the fact that the original storyline was well known beforehand, and so the participants felt no P-responses, but is probably acknowledging that these might be expected in the reading of narratives.

Overall, participants found the text enjoyable to read, with response comments suggesting possible A-emotions such as:

P1: It was funny!

P3: Totemo omoshiroi sutoorii da to omoimasu.

I think it was a really interesting story.

P5: I enjoyed this text. It was funny because it is not the normal story.

Although some response comments reflected the fact that there were areas of difficulty too:

P1: Danjo byōdō no byōsha de yomitsurai.

The gender equality description was hard to read.

P2: It was not difficult but not easy for me to read this text because there were some words that I don’t know.

P5: The sexism topic is quite hard, so sometimes the words were difficult for me.

However overall, it would appear as though participants in group 1 found text 2 easier to read and comprehend than they found text 1.

Some participants in group 1 identified text 2 as narrative in genre by referring to the text as a ‘story’ in their response comments. For example:

P3: Totemo omoshiroi sutoorii da to omoimasu.

I think it was a really interesting story.

P5: It was funny because it is not the normal story.

What this suggests is that participants were aware of the type of text that they were reading and know about elements common to narratives such as character, setting, plot, etc. This undoubtedly had an effect on their interpretation of the text as a whole based on what they knew a narrative to
involve, including their recall of character names and attributes, the location in which the story was set, and the sequence of events which made up the plot. For example, P1’s outlining of the characters, P2’s description of a setting, and P4’s combination of character, setting, plot, and chronological sequencing of events are evidence of such textual and genre competence.

P1: *Little Red Riding Hood, wolf, wood cutter, Grandma (so healthy and strong).*

P2: *Obaachan wa mori no edge ni sundeita. It was dangerous to enter the woods.*

*The grandma lived on the edge of the forest. It was dangerous to enter the woods.*

P4: *Shōjyo wa ie ni hairi, obaasan ni narisumashita ōkami to sōgū shi, odoroku to tomo ni ōkami ni osowareru.*

*The girl entered the house, and she was attacked by the wolf disguised as grandma.*

### 4.2.2.2 Group 2

Whilst group 2 provided only 144 recall words in total (an average of twenty-nine per person), twelve less than the individual average of participants in group 1, this difference can be attributed to the abnormally long comment made by one participant (P4) in group 1. Recalls made by participants in group 2 show a significantly more developed situation model and thus higher level of comprehension than those made by participants in group 1.

Recall comments made by participants in group 2 regarding the text as a whole suggest that they too were drawing upon background intertextual knowledge and making connections between the text and its original storyline to infer and comprehend the narrative overall.

P6: *Akazukin chan no chigau baajon.*

*A different version of Little Red Riding Hood.*

P8: *Akazukin chan no gendai ban.*

*A modern version of Little Red Riding Hood.*

P9: *Orijinaru to chigau no wa tasukeyōtoshita otoko no hito wo koroshite, san nin naka yoku kurashita to iu tokoro.*

*What’s different from the original is that they killed the man who was trying to help them and the three lived happily.*
Furthermore, the following response comments show that participants were relating the narrative to what they know and understand of issues associated with modern society.

P6: Ima no jidai ni pittari na o-hanashi da to omotta.

*I think it was a perfect story for this era.*

P8: Josei ga tsuyoku kakareteiru no ga zanshin datta.

*The fact that the woman was written as strong was novel and original.*

This shows a great deal of comprehension in terms of relating what they have read to background knowledge of the outside world, and developing opinions and inferences about the text based on such information. Other response comments also suggest that the readers were using top-down reading skills and looking at the text beyond the surface level:

P6: Seisabetsu nitsuite.

*It was about gender discrimination.*


*It was written about sexual discrimination from the viewpoint of a woman. [...] It was a text that was funny, but made me think about the role of women.*

Such comments also show that the participants have an understanding of F-emotions/empathising with characters and looking at things from the female characters’ perspectives - important elements in text comprehension and part of situation model construction.

For most of the narrative element of character, comments were relatively simple in form, with the majority simply outlining the characters by name, for example:

P9: Obaachan no moto no kukkii wo todoke ni ikimashita. Sono tochū ni ōkami ni atta.

*Little Red Riding Hood went to deliver cookies to her grandma. On the way, she meets a wolf.*

A few details were provided. For example:

P9: Hijyō ni mature adult de aru to jikaku ni.

*Aware that she [Red Riding Hood] is a mature adult.*

Unlike in group 1, participants in group 2 provided more insight into the characters’ relation to the overall topical issues reflected in the text as a whole. For example, the following response comment
indicates that the reader has an understanding of the text beyond the mere surface level and that bottom-up reading skills are being used.

P7:  Shujinkō to **Grandmother** wa shu ya seibetsu wo kinishinai hito tachi.

*The hero and Grandmother are people who don’t care about types or discrimination.*

However, participants failed to provide many comments regarding the setting of the narrative. This suggests that they did not necessarily make causal links between such sequences of events as Red Riding Hood entering the dangerous forest and the wolf taking a shortcut to Grandma’s house. Not one participant refers to the event in which Grandma is eaten by the wolf. Whilst the following comment does carry the presupposition that the wolf must have first eaten her before she was able to ‘come out’, this detail was not explicitly stated in the recall comment:

P8:  Kikori ga jiriki de ōkami kara detekita obaasan ni yotte korosasereru.

*The woodcutter [...] was killed by the Grandma who came out from the wolf.*

Two out of the five participants recalled the climatic event in which the woodcutter is unexpectedly killed by Grandma:

P8:  Akazukin chan to obaasan wo sukuu hazu no kikori ga jiriki de ōkami kara detekita obaasan ni yotte korosareta.

*The woodcutter who was supposed to help Red Riding Hood and Grandma was killed by the Grandma.*

P9:  Tasukeyōtoshita okoto no hito wo koroshita.

*They killed the man who was trying to help them.*

This was significantly different from the original narrative storyline, and was thus perhaps easier to recall, however no detail was provided as to why the woodcutter was killed in relation to the topic of feminism.

Four out of the five participants recalled the resolution/conclusion to the narrative, which indicates the situation model of charter perspective.

P6:  Ōkami to shōjo to obaachan ga saishūteki ni naka yoku kurasu.

*At the end, the wolf, Red Riding Hood and Grandma lived happily.*

P7:  Shujinkō to **Grandmother** to ōkami wa issho ni kurasu koto ni natta.

*The hero, Grandmother, and the wolf lived happily together.*
P8: Akazukin to obaasan to ōkami wa shiawase ni mori de kurasu.

*Red Riding Hood, the wolf, and Grandma lived happily together in the forest.*

P9: San nin naka yoku kurashita.

*The three lived happily.*

Only one comment reflected a sense of temporality, but even this was lacking in detail.

P9: Tochū ni ōkami ni ai, tonikaku obaachan no ie ni tsuita.

*On the way, she meets a wolf, but continues on to her grandma’s house anyway.*

This comment suggests that time has passed between Red Riding Hood’s departure for Grandma’s house and her run-in with the wolf, although no comments are made as to how much time has passed, or indeed what may have happened during that time. It has to be borne in mind, however, that the fact that textual information is not mentioned in a recall does not necessarily indicate that the participant does not remember or understand it.

As in group 1, participants in group 2 seemed to enjoy reading the text, also reflective of A-emotions, as shown in such response comments as:

P9: Omoshiroi endingu de atta.

*It was an interesting ending.*

P10: Omoshiroikatta.

*It was funny/interesting.*

Group 2’s discussion of text 2 ran for approximately three minutes and forty-five seconds, however actual speaking time was relatively limited, and as a result, the discussion itself provides only a small number of further insights regarding aspects of the narrative as a whole. Comments in the discussion showed that participants had a deeper insight into the characters of the text despite the fact that these perceptions did not make it in to participants’ final written recalls. For example, two particular comments regarding Little Red Riding Hood suggest that the learners were relating the character to the underlying topics of the text:

P9: *I prefer this story to the original one [...] because Red Riding Hood is very logical.*

P8: *She’s very independent and doesn't want to be judged by the gender.*
By noting the character’s logical and independent attributes, as well as her overall dislike for
gender-driven judgments, the readers express their understanding of character perspectives and
ability to make inferences based on bottom-up and top-down reading skills. The discussion brought
about further instances of readers’ bottom-up skills, including the discussion of word meanings, for example:

P10: Because it was a nice gesture... what’s gesture? I know gesture, but what’s this case?
P8: Act.
P10: Oh I see.

In this case, P10 has encountered and expressed his misunderstanding of the word ‘gesture’, to
which P8 has explained the meaning without using L1 translation, consistent with the L2 English
mode of discussion, displaying bottom-up, text-based reading skills as she imparts her knowledge to
P10. This action suggests an overall comprehension not only of the word ‘gesture’ itself, but also of
the linguistic and narrative contexts within which the word was used in the text. From this, one can
conclude that P8 has semantic knowledge of the word and understands its narrative context, with
P10’s comment ‘Oh I see’ suggesting that he too now shares that comprehension.

Finally, it is noteworthy to mention that the group discussion also opened way for a range of
opinion-based and affective comments from the participants.

P6: I think Grandma’s awesome.

P7: It’s a good story for girls I think.

P8: I think this sentence insists feminism or something. It includes a social meaning or
some statement.

This shows that the readers are looking beyond the mere surface of the text and are linking what
they read to their own personal thoughts, opinions, socio-cultural knowledge and perhaps even
experiences, with P6’s comment showing evidence of F-emotions, P7’s comment showing evidence
of A-emotions, and P8 showing an inference and textbase construction.

As did participants in group 1, participants in group 2 identified the genre of the text to be narrative,
as shown in recall comments such as:

P6: Ima no jidai ni pittari na o-hanashi da to omotta.

I think it was a perfect story for this era.
P9: I prefer this story to the original one.

This suggests that participants were aware of the the type of text they were reading which undoubtedly focused their attention on particular aspects of the text as they attempted its comprehension and constructed meaning - setting up a framework for comprehension to occur.

Evidence of the text genre awareness can be seen in recall statements mentioning elements of character, plot, resolution etc., and the making of causal links and chronological presentation of events - all of which can be seen in the following recall comment:

P8: Saigo teki ni akazukin chan to obaasan wo sukuu hazu no kikori ga jiryoku de ōkami kara detekita obaasan ni yotte korosareta. Soshite akazukin to obaasan to ōkami wa shiawase ni mori de kurasu.

At the end, the woodcutter who was supposed to help Red Riding Hood and Grandma, was killed by the Grandma who came out from the wolf. Red Riding Hood, the wolf, and Grandma lived happily together in the forest.

4.2.2.3 Group 3

With 220 recall words in total (an average of forty-four words per person), group 3 provided the most extensive recalls for text 2 overall. With comments suggesting a range of developed situation models and effective reader skills, the recalls provided by participants also reflected the highest level of comprehension.

Much like in both groups 1 and 2, the majority of participants in group 3 provided comments suggesting they too were drawing upon background knowledge, including intertextual knowledge and socio-cultural knowledge, and using top-down reading skills to compare and contrast the text and the original fairy tale as part of the overall comprehension process.

P11: Futsuu no “akazukin” no hanashi to wa chigau “akazukin”.

It was a different ‘Little Red Riding Hood’ to the normal story.

(Showing intertextual knowledge).
P13: Yomihajimeta toki ni motta inshō to, tochū kara imeeji ga kawatte kita. Dōwa toshite no akazukin de wa naku, ‘outside status’ ya ‘masculinity ya femininity’ nado no gender no yōsu ga fukumareteru.

The image and impression that I had when I started reading changed half way through. It wasn’t the fairy tale Little Red Riding Hood. It included gender elements such as ‘outside status’ and ‘masculinity and femininity’ etc.

(Showing socio-cultural knowledge).

P15: Saisho wa futsuu no akazukin no hanashi to nitteiru no desu ga, tochū de kawatte kuru.

It starts like the original Little Red Riding Hood story, but then it turns slightly different.

(Showing intertextual knowledge).

However, unlike in either of the first two groups, the majority of the participants in group 3 (four out of five) provided detail about the topics of the text. For example:

P15: It is about sexism and gender problems in the world.

They also provided more detailed, chronological accounts of the events within the narrative, including Red Riding Hood taking fruit to Grandma, entering the forest, meeting the wolf, arriving at Grandma’s, fighting with the wolf, being saved by the woodcutter, and eventually living with Grandma and the wolf happily ever after. As a result, all four of the main characters were dealt with from the beginning. In addition to the outlining of their existence within the text, participants in group 3 also provided more details of the narrative element of character. Comments on character ranged from simple statements regarding the basic actions of the characters:

P12: Mama ni furūtsu no kago wo obaachan ni todokeru you ni iwareta.

Little Red Riding Hood was told by her Mum to take a basket of fruit to her Grandma.

P12: Akazukin wa ōkami to deau.

Red Riding Hood met a wolf.

P11: Akazukin wa rebutted.

Red Riding Hood rebutted.
They also included more complex sentences regarding character perspectives and emotions in relation to the underlying topics of sexism and feminism:

P13: Onna no ko ni mori wa abunai yo to ōkami ni iwarete, sexist to hanron suru.

*When she is told by the wolf that it’s dangerous for girls to be in the forest, she argues that is sexist.*

P14: Akazukin wa ōkami, kikori tachi no sore ni moto tsuita hatsugen ni taishite okotta no da to omou.

*Red Riding Hood was angry towards such remarks made by the wolf and woodcutter.*

This suggests that the readers were able to draw connections between the characters within the text and relate these to the topics and the author’s literary point - a sign of effective reading skills. Furthermore, participants showed an understanding of A-emotions and narrative situation model construction as shown in the following comment in which the reader reads the text from the characters’ viewpoint, but also appreciates the style in which the text was written:

P14: Akazukin to ōkami wo shakaigaku, gendaa no shiten kara yumorasu ni hōgen shita bunshō da to watashi wa kanjita.

*I felt like it was a text humorously expressed from the sociological gender viewpoint of Little Red Riding Hood and the wolf.*

An understanding of character perspectives is furthered displayed through comments concerning the protagonist, Red Riding Hood, for example:

P11: Akazukin chan nomi ga danjo byōdō wo kakushin shite koe wo ageta.

*Only Red Riding Hood spoke up her firm beliefs on gender equality.*

P15: *Red Riding Hood is strong and believes in women’s rights.*

This also suggests the readers’ ability to build a coherent textbase.

Very little attention was focused on setting in the recalls, other than the mere outlining of various locations (e.g. *the forest, Grandma’s house*). However, as in group 2, the following comment suggests some insight into the fact that ‘bad things’ will happen in the forest:

P11: Mawari no hito wa tomeru: *because it’s too dangerous ‘for a girl’ to enter the forest.*

*People around her stop because it’s too dangerous ‘for a girl’ to enter the forest.*
As in groups 1 and 2, participants in group 3 provided little detail regarding temporal elements within the narrative. Only one participant notes that:

P13: Ōkami wa sakimawari shite obaasan no ie ni tsuku.

*The wolf gets to Grandma’s house ahead of her.*

In this case, the phrase *ahead of her* suggests a time difference in arrival between the wolf and Red Riding Hood and mentions the grandmother’s house as the setting, thus including a spatial dimension.

The modified narrative differs from the traditional one in that Red Riding Hood is frequently offended by the sexist remarks of both the wolf and the woodcutter. Three out of the five participants recalled this:

P13: **Sexist** to hanron suru. […] Kikori ga chūkai ni hairu kedo, Akazukin wa mata **sexist** to hanron.

*She argues that is sexist. [...] A woodcutter enters to mediate, but Red Riding Hood again argues this is sexist.*

P14: Akazukin wa ōkami, kikori tachi no sore ni moto tsuita hatsugen ni taishite okotta no da to omou.

*Red Riding Hood was angry towards such remarks made by the wolf and woodcutter.*

P15: Kare mo **sexist** na node akazukin wa kare ni okotekuru.

*She gets angry at him for being sexist too.*

Such comments also suggest readers are making causal connections between the characters and their actions, and are also showing their understanding of the differences between the text and its original storyline. However, only one out of the five participants recalled the altered climactic event in which *Grandma kills the woodcutter* (P15), with three out of five noting the conclusion to the narrative:

P12: Obaachan to shiawase ni kurasu.

*She lives happily with her Grandma.*

P13: Saigo wa ōkami ga obaasan no wakai shite happi endo.

*In the end, the wolf, Grandma, and Red Riding Hood reach a reconciliation and it is a happy end.*
P15: Saigo ni minna ga issho ni shiawase ni kurasu.

*They live happily ever after.*

Participants also showed aesthetic responses as reflected in comments such as:

P14: Kojinteki ni kou iu hiniku, jyōdan meita eibun wa eigo gakushūsha tachi ni motto yomaseru beki da to omotta.

*I think this kind of English text that has a sarcastic and joking sense about it should make English learners read more.*

There was evidence of a few inaccurate recalls, for example:

P11: *As ordinary story goes,* akazukin chan, ōkami to hanashi, taberare, kikori ni tasukerareru.

*As ordinary story goes,* *Red Riding Hood talks to the wolf, gets eaten by him, and saved by the woodcutter.*

P12: Obaachan to shiawase ni kurasu.

*She lives happily with her Grandma.*

In these two cases, P12 has left out the fact that they also live happily with the wolf, and P11 has incorrectly recalled who was eaten by the wolf and has produced a false recall based on the original fairy tale.

However, aside from this, participants found the text to be enjoyable overall and comparatively easy to understand, as was reflected in comments such as:

P12: Tashō wakaranai tango wa atte mo, bunzentai ga yasashii naiyō datta node, surasura to yomisusumeru koto ga dekita.

*Even though there were a few words I didn’t know, the text has easy content, so I could read it without any difficulty.*

P14: Yondeite hijyō ni tanoshikatta. Mata, bunshō jitai mo muzukashii tango wa sore hodo ōkunakatta tame, rikai mo shiyasukatta.

*It was extremely fun to read. Also, because the text itself didn’t have too many difficult words, it was easy to understand.*
Readers’ engagement with the text in this way (i.e. “it was extremely fun to read”) may also be taken as evidence of comprehension.

Group 3’s discussion ran for approximately five minutes and thirty seconds, significantly longer than group 2’s discussion of the same text. Interestingly enough, the discussion related very little to the actual content of the narrative itself, with participants instead becoming sidetracked and venturing into psychological topics, for example:

P14: Kore, makuro soshioroji?

I think this is macro-sociology?

This may be considered critical reading (see Wallace, 2003), as engagement with the text, or even as learning from the text (construction of new knowledge).

One participant’s comment, centered around what he proposed to be the wolf’s way of thinking, dealt with the concepts behind group discussions and the influences of the environment on conversational output. He stated:

P14: Boku tachi kō yatte disukashshon wo shiteiru, tatoeba kangaekata toka hanashikata to iu no mo jissai wa kō iu kankyou ni shihai sareteiru tte koto de... Tatoeba, boku wa moshi kō iu heya jankute, tatoeba sono ragubii kaijyō toka de sa disukashshon shiyou de are de mo onaji janai... kō iu fū ni onaji mono wo yonda toshite mo onaji kotaes toka hanashi shaberikata ga dekinai to omou yo.

... we’re doing this kind of discussion and, for example, our way of thinking and way of speaking etc. are actually controlled by this environment... But, for example, if we weren’t in this kind of room, but, for example, if we were discussing it at a rugby ground, it wouldn't be the same. Even if we read the same thing in this same kind of way, I don’t think we could get the same answer or have the same way of speaking.

The participant who provided this meta-critical comment was attempting to relate what was said to the wolf’s ‘outsider status’:

P14: Ōkami ga hoka no hito toka, hoka no daisanchi ni omowareru koto ni yotte.

It depends on what others think about the wolf.

This shows the participants’ consideration of the characters’ underlying motives and the rationale behind their actions, which is undoubtedly an attribute of effective reading. The participant is also relating the text to his existing knowledge - a top-down reading strategy. What is interesting about
this case is that the participant was eager to confirm this opinion with another participant who is studying psychology.

P14: Toku ni hitotsu Serisawa-san ni go kakunin shite itadakitai.

One part in particular I would like to conform with Serizawa [the other participant].

The two participants then further engaged in a psychologically-based discussion.

P14: Jibun ni jissai ni ugoiteiru you ni omotta toshite mo, igai to kou iu kankyou ni boku tachi wa nanka kisei sareteiru.

Even if you think you’re moving by yourself, we are unexpectedly regulated by our environment.

P13: Un, seigen saretarikisei saretarai.

Yeah, we’re restricted and shaped.

Whilst this ‘socio-psychological’ discussion took up the majority of the overall discussion time, participants also managed to discuss other elements of the narrative including the differences between this text and the original Red Riding Hood story line.

P11: Saisho wa futsuu ni akazukin no monogatari kana to omottan da kedo, yondetan da kedo kono hen toka wo miteiru to, konna fukai koto ma mo kitto attan da-

At the start I thought this was going to be just the normal Little Red Riding Hood story, but when I was reading and looking at this part, I was wondering, was it really this deep before?

P12: Sō, demo saisho wa yappari shitteiru hanashi da kara yomiyaskute surasura yondeta kedo, dandan nanka are kore chotto chigau-

Yeah, but of course, at the start, it’s a story that you know so you read without any difficulties, but then you realise this is slightly different-

P11: Chotto chigau yo ne?

A bit different right?

P12: Jibun no kangee to chigau kara-

It’s different from your idea of the story, so-

P14: Yondeiku to chotto yosō shinai kara, nanka tanoshiku natta.

Yeah, and as you continue reading, it’s not as you expect, so it became quite fun.

And;

P12: Saigo wa obaachan ga futari to shiawase ni kurashteiku-

In the end, the Grandma lives happily together with the other two-
Yeah, they never lived happily together with the wolf before, right?

This suggests a sense of A-emotions as participants are aware of the way in which the author constructed the text. There were also comments regarding character, including simple affective comments on the protagonists which indicate textual engagement, for example:

P12:  Akazukin chan sugoi yo ne!

*Little Red Riding Hood’s awesome right?*

P14:  Obaachan konna ni kenkou na hito dattan da?

*Was Grandma always this healthy?*

As well as more complex insights related to the underlying topics of the text as a whole, for example:

P14:  Akazukin shika sō iu hatsugen ittenain desu yo ne? Sono, nan darou? Seisabetsu teki na koto?

*Red Riding Hood is the only one saying that kind of... what do you call it? Sexist thing right?*

The insights into various characters as well as the conclusion show that participants were thinking about the narrative beyond the mere surface level of the text, and were making connections and inferences based on their background knowledge and using top-down reading processes; all skills involved in effective reading and text comprehension.

Participants in group 3 also identified the text as narrative in genre through statements describing it as a ‘story’. For example:

P11:  Futsuu no “akazukin” no hanashi to wa chigau “akazukin”.

*It was a different “Little Red Riding Hood” to the normal story.*

P12:  Saisho wa shitteiru hanashi dakara yomiyasukute surasura yondeita kedo, dandan nanka are kore chotto chigau tte…

*At the start, it’s a story that you know so you read without any difficulties, but then you realise this is slightly different-

P14:  Kono yō na hanashi ga suki desu.

*I really like this kind of story.*
As evidenced through the following comments, this genre awareness appears to have had an effect on their comprehension of the text as a whole, particularly in their outlining of narrative elements such as character, plot, setting, resolution etc. For example, P11’s recall comment makes causal links and outlines two of the main characters, the start of the plot, and the setting, and P13 comments on the resolution to the conflict in the storyline.

P11:  Akazukin chan mori he kenkō na obaachan ni shokuryō wo todokeru tame ni itta.  
Little Red Riding Hood went into the forest to take her healthy Grandma some food.

P13:  Saigo wa ōkami ga obaasan to akazukin no wakai shite happi endo  
In the end, the wolf, Grandma, and Red Riding Hood reach a reconciliation and it is a happy end.

4.2.3 Text 3

Text 3 was a joke (Dirty Coffee, 53, see Appendix 6) involving a pun on the word ground to mean both soil and the past participle of grind. Unlike texts 1 and 2, text 3 was a very short narrative and thus contained relatively fewer narrative elements upon which to base participants’ comprehension analysis. Instead, analysis will centre around the defining feature of the text; the pun in the punchline of the joke: a play on the word ground. Participants struggled with the word-play overall, unable to infer the intended meaning of ground coffee and instead becoming caught up in the literal meaning of soil (particularly because the word dirt appeared in the text too). The results of their interpretations are as follows.

Table 4.18 summarises the total number of words that were written by each group for their recalls of text 3, with Table 4.19 showing the average word count for their response comments of the text.

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>130</td>
<td>26</td>
</tr>
<tr>
<td>Group 2</td>
<td>151</td>
<td>30</td>
</tr>
<tr>
<td>Group 3</td>
<td>168</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 4.19: Total number of words for written recalls per group for text 3.
Table 4.20: Total number of written response words per group for text 3.

Here is the table:

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>97</td>
<td>19</td>
</tr>
<tr>
<td>Group 2</td>
<td>104</td>
<td>21</td>
</tr>
<tr>
<td>Group 3</td>
<td>128</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 4.21 below provides a summary of the number of participants in each group who mentioned individual textual features and specific reading conventions involved in the construction of the situation model for text 3.
<table>
<thead>
<tr>
<th>TEXT 3</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constituent elements of the text-base:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macro-propositions</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Micro-propositions</td>
<td>1/5 (20%)</td>
<td>2/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Constituent elements of a situation model:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>4/5 (80%)</td>
<td>4/5 (80%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Setting</td>
<td>1/5 (20%)</td>
<td>2/5 (40%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Causality (causal links)</td>
<td>2/5 (60%)</td>
<td>4/5 (80%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Events and situations</td>
<td>4/5 (80%)</td>
<td>4/5 (80%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Character actions</td>
<td>4/5 (80%)</td>
<td>4/5 (80%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Character intentions and perspective</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Constituent elements of the plot:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
<td>5/5 (100%)</td>
</tr>
<tr>
<td>Climax (punchline)</td>
<td>0/5 (0%)</td>
<td>1/5 (20%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Resolution</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Top-down processing including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of P-responses</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Evidence of F-Emotions</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Inferences beyond the surface level</td>
<td>0/5 (0%)</td>
<td>2/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Personal connection/ autobiographical links</td>
<td>0/5 (0%)</td>
<td>2/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Speculation about meaning in the form of questions</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Genre comprehension</td>
<td>1/5 (20%)</td>
<td>1/5 (20%)</td>
<td>1/5 (20%)</td>
</tr>
<tr>
<td>Bottom-up processing including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence of A-Emotions (craft of author evaluated)</td>
<td>1/5 (20%)</td>
<td>3/5 (40%)</td>
<td>3/5 (60%)</td>
</tr>
<tr>
<td>Questioning of text structure</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>2/5 (40%)</td>
</tr>
<tr>
<td>Linguistic analysis</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
<td>0/5 (0%)</td>
</tr>
<tr>
<td>Total frequency of features and reading conventions mentioned:</td>
<td>28/95 (29%)</td>
<td>38/95 (40%)</td>
<td>55/95 (58%)</td>
</tr>
</tbody>
</table>

Table 4.21: Participants’ mentioning of textual features and reading conventions for text 3.
4.3.2.1 Group 1

With 130 recall words and ninety-four response comment words in total, group 1 provided the shortest recalls and responses out of all three groups for text 3. Despite the shortness of the text (53 words), there were a number of areas which participants found particularly difficult to comprehend.

P2: Bunmyaku de sukoshi rikai dekinai tokorogu atta.

*There were parts that I could not understand in context.*

Such areas of difficulty included arguably the most important part of the text: the punchline of the joke, which contains a play on the word ‘ground’. This proved difficult for the readers to analyse; participants often not noticing the pun or misinterpreting the word “ground” (Punchline: “There’s dirt in my coffee!”, “That’s not surprising sir”, replied the waiter. “It was ground only half an hour ago.”). Two such comments that reflect this confusion are:

P1: I don’t get any of this. Sounds like a kind of joke about grind or ground, but still I have no idea.

P5: Nande jimen ni atta no ka yoku wakaranakatta.

*I didn’t really understand why it was on the ground.*

These participants have realised the fact that the word ground is an important element in the successful comprehension of the text overall, but are unable to work out exactly why this is the case and indeed what the word actually means.

All five participants recalled the problem that there was dirt in the customer’s coffee:

P1: There was dirt in a cup of coffee.

P2: Kōhii ni wa gomi ga haitteita.

*There was dirt in the coffee.*

P3: Kōhii wo chūmon shita tokoroko haitteita.

*There was dirt in the coffee that they just ordered.*

P4: Kyaku ga kōhii wo kafe de tanonda (ueitaa wo yonde). Kyaku wa mata ueitaa wo yonde, kōhii ni “dirt” (gomi) ga haitteiru to monku wo iu.

*A customer ordered coffee in a cafe (he called the waiter). He called the waiter again, and complained there was dirt in it.*
The customer orders coffee, but it has dirt in it.

This is an important element in the comprehension of the text, as the word dirt not only forms the basis upon which the joke is set, but also affects the way in which the readers analyse the word ground at the conclusion of the text.

All five participants recalled the fact that something had happened to the coffee thirty minutes beforehand:

P1: *It was ground only half an hour ago?*

P2: Kyaku san ga chūmon shita kōhii no mame wa 30 pun mae ni hikareta mono de aru to iu koto.

*The coffee beans that the customer ordered were taken 30 minutes beforehand.*

P3: San juppun mae made jimen no ue ni atta.

*Half an hour ago it was on the ground.*

P4: 30pun mae ni wa tsuchi ni atta node.

*Because 30 minutes ago it was in the ground.*

P5: 30pun mae ni jimen no ue ni atta.

*It was on the ground only 30 minutes ago.*

Of these, however, only P2 recalled the correct nuance behind the passage stating that *it was ground only half an hour ago*. However because this is a direct recall of the words from the text, there is no evidence to suggest that the participant fully understands the associated meanings.

It would appear that the majority of participants in group 1 misinferred the meaning of ground and therefore have not fully understood the text as a whole. In particular, the following comments focus on the ‘earth surface’ meaning of ground and the fact that the coffee was on top of that.

P3: San juppun mae made jimen no ue ni atta

*Half an hour ago it was on the ground.*

P4: 30pun mae ni wa tsuchi ni atta node.

*Because 30 minutes ago it was in the ground.*
P5: 30pun mae ni jimen no ue ni atta.

*It was on the ground only 30 minutes ago.*

What this suggests is that the readers have created a situation model based on the literal dirt/soil meaning of *ground*, rather than on the intended past participle of *grind*. This further suggests a shallow understanding of the text as a whole and a lack of contextual comprehension. However, it may also suggest a simple lack of lexical comprehension of the additional meaning of the word *ground* as the past participle of *grind*; a verb used in the act of crushing coffee beans (arguably the lesser known of the two potential meanings for intermediate ESL learners).

Despite an apparent lack of comprehension of the joke, participants appeared to enjoy the text as a whole, as evidenced by comments such as:

P2: *It was easy to read because I could imagine the situation.*

P3: *Umai naa to omimashita.*

*I think this was good.*

P4: *Kojinteki ni suki desu.*

*Personally I like this.*

P5: *Kono tekisuto wa kaiwa no you desu kara kantan datta.*

*The text was easy because it is like a conversation.*

These comments show minor signs of textual engagement and effective reading skills such as top-down reading including relating the text to one’s own thoughts and experiences, as well as A-emotions in the case of P5’s comment. However, such skills did not appear to help the learners in correctly analysing and comprehending the text at hand, and it could therefore be said that group 1 had a relatively a low level of understanding of text 3 overall.

One participant in group 1 gave an opinion on the overall genre of text 3, although as with comments made concerning the poetic genre of text 1, there was no certainty or confidence behind the remark:

P1: *Sounds like a kind of joke about grind or ground, but still I have no idea.*

Despite the fact that this inference is correct, the lack of confidence suggests that the learner may be guessing as to the genre as a whole, and if so, it is likely that her acceptance of the genre did not have a great deal of effect on her analysis and comprehension of the text as a whole. On the other
hand, the fact that she referred to it as a joke may mean that she has a joking framework in place - the results are unclear from the recall and response comments alone.

4.3.2.2. Group 2

Group 2 provided a total of 151 recall words (an average of thirty per person), fourteen percent more than group 1. Interestingly, unlike in group 1, four out of the five participants in group 2 provided a brief summary of the joke as a whole, including such comments as:


* A customer goes to a coffee shop and orders a coffee. When the coffee was brought, he realised there was dirt in it.

P7: Waiter wa, sore wa atarimae no koto. Because 30pun mo mae ni mame wo hiita mono da kara.

*The waiter says that is natural, because they ground the beans 30 minutes ago.*

This suggests that participants have a general understanding of the causal connections between sequences of events within the text.

All five participants refer to the word *ground* in the final line of the text, and their thoughts on the difficulty of the term overall. However, there are more promising signs of successful comprehension by a number of group 2 participants than there were by participants in group 1. To begin with, one participant draws attention to the key concepts at the very beginning of his response, simply stating:

P7: Dirt, ground.

This perhaps suggests he is misinferring the later meaning of *ground* in relation to the concept of dirt, but may also be an outline of the idea behind the joke.

More evidence of this common misunderstanding arises in the following comment in which the participant has misinferrered the meaning to suggest that the coffee had been on the ground.

P8: 30pun mae ni jimen ni atta.

*It was on the ground only 30 minutes ago.*
However, there were a number of signs that suggested participants in group 2 had a more developed understanding than those in group 1, as seen through their use of higher level thinking skills. For example:

P9: Uetoressu wa taishita koto de wa nai to iu. Sore wa ichi ji kan mae ni ground sareta mono dakara to. Soko de no imi ni wa mou hitotsu “ground” to iu jimen no imi mo aru de wa nai ka to omou.

The waitress said “it’s no big deal, because it was ground an hour ago”. In this meaning, I think there is also another meaning of ‘ground’ which is the earth’s surface.

P10: “It was ground only half an hour ago”… kono bun no imi ga “shinsen” to iu imi ka, “kitanai” to iu imi ka kangaeta.

‘It was ground only half an hour ago’… I wondered if this sentence meant fresh or dirty?

P9’s comment here suggests that the reader is looking beyond the mere surface level of the word into the various possible meanings of ground. P10’s comment, on the other hand, suggests that, although the reader is unsure about which meaning he should infer, he has some understanding of the fact that the word ground may be referring to both dirt and the grinding of coffee.

P7 has an understanding of both meanings of the word, even referring to the fact that it may be a joke using the two words dirt and ground:

P7: 2 pataan wo kangaeraru. 1.) dirt to ground wo kaketa joke. 2.) Tanjun ni 30pun mo mae ni hikarete, sanka shita mazui kōhii wo shita ga koeteiru hito ga nondari, sugu wakaru.

I thought of 2 patterns: 1.) it was a joke using the words dirt and ground, or 2.) Simply, it was ground 30 minutes ago, and when the person with a sophisticated palate drank the bad tasting oxidised coffee, he knew immediately.

The second section of this comment, however, reveals an inference made by the participant involving a bad oxidised taste to the coffee, none of which was mentioned in the original text itself. Considering different meanings, however, may also suggest comprehension monitoring.

Another participants comments:

P7: 30 pun mo mae ni mame wo hiita.

They ground the beans 30 minutes ago.
Here, the participant has rephrased the original wording of the text based on his own understanding. *They ground the beans* gives the reader’s inference and mental representation. While there is still no suggestion that he has understood the pun and the punchline of the joke in relation to the dirt in the coffee, he is constructing his own textbase and situation model.

Participants in group 2 also showed a number of higher order thinking skills. The following comment perhaps indicates the benefits of group discussions in making readers aware of other interpretations of the text that might not have occurred to them individually.

P9:  Jibun no imi ga yuiitsu da to omotta ga, hoka no hito wa iroiro chigatte odoroita.  
     *I thought my meaning was the only one, but others had many different meanings, so I was surprised.*

Many participants expressed their feelings that the text was relatively easy to understand overall.

P6:  Kaiwa hyōgen bakari de yomiyasui.  
     *It was only conversational expressions, so it was easy to read.*

Some participants commented on the way in which the text made them think; an indication that top-down and bottom-up textual processing have taken place.

P10:  Kantan sou na bun da ga imi wo kangaesaseru bun datta.  
     *It looks like an easy text, but it was a text that makes you think about the meaning.*

Participants also commented on their personal thoughts which shows their ability to relate what they’re reading to their own personal experiences and background knowledge of the world beyond the text; in other words, to engage in top-down processing.

P6:  Naiyō wa sukoshi hen da na to kajiru. Futsū nara, okyaku san wa kōhii to uetoressu no taiō ni taishite okoru tokoro da to omotta.  
     *I felt like the content was a little weird. If it was normal, I think the customer would get angry at the coffee and the waitress’ response.*

One participant showed a metacognitive knowledge of effective reading skills:

P8:  Baai ni yotte imi wa kawaru no kamoshirenai to omotta.  
     *I thought that the meaning might change depending on the circumstances.*
Running for just one minute and ten seconds, the shortest of all the discussions, group 2’s discussion of the text built upon only a small number of textual elements. Some participants expressed the ease at which they read the text:

P9: *It’s quite easier than the others.*

Others looked beyond the surface level of the text, suggesting the use of bottom-up and top-down reading skills:

P6: *The meaning of each sentence is easy, but the circumstances is strange, so overall it’s hard to understand.*

The participants expanded upon this *strange circumstance* and showed an active attempt to construct meaning by questioning the text and considering different interpretations:

P6: *The waiter should be surprised because it is dirt, but he is not, so it’s strange.*

To which another participant replies:

P9: *So he’s not surprised means he doesn’t care?*

P6’s response suggests her ability to draw upon her background knowledge of society to question the unusual situation in the text. In response to this, participant 9 posits an inference based on his own knowledge of word meanings. Both of these actions undoubtedly show effective reading.

Building on the confusion mentioned above regarding the word *ground*, participants discussed possible meanings of the term.

P8: *I’m not sure about the meaning of ground. Does it mean fresh?*

P7: *No I think it means powder.*

Together they arrive at a plausible meaning, but this does not resolve the reference to the dirt in the customer’s coffee; an aspect which P7 continues to investigate and explore.

P7: *[…] the dirt means bad taste. […] So, it’s not literal dirt, just a bad taste maybe?*

Although not an entirely correct inference, this shows the participant's ability to question and interact with the text and construct meaning of the text beyond the mere surface level; skills that were not seem within group 1.

Group 2 also showed one instance in which code-switching was used, perhaps as an aid to comprehension - a type of self-scaffolding:

P7: *This waiter is not, maybe I think he is a… arubaito…*
P6: Part time.
P7: Yeah, part time job person.

In this case, P7 has forgotten the English word for part time job and slipped back into Japanese (arubaito) to convey his point. P6 then provides him with the English word, with which P7 rewords his original statement and continues his discussion. This again shows the participants’ use of top down processing skills in the reading, post reading, and comprehension of the text.

One out of the five participants in group 2 provided a comment regarding the joke genre of the text, stating:

P7: It was a joke using the words ‘dirt’ and ‘ground’.

What is unique about this comment is that, unlike any previous comments made by participants of any group regarding the genre of the text, this comment appears to be said with an element of certainty. In stating “it was a joke” as opposed to “I wonder if this was a joke” or “this reminds me of a joke”, P7 expresses knowledge of the text’s genre, although there is no further evidence in his comments that suggests he utilised this knowledge when comprehending the text throughout both the reading and discussion processes. However, he does realise that the punchline of the joke is one involving a play on word meanings, a significant aspect of joke reception.

4.3.2.3. Group 3

Group 3 provided a total of 168 recall words (an average of thirty-four words per person), thirty-eight more than group 1 and seventeen more than group 2. As in group 2, but in much greater detail, participants in group 3 offered complete recalls of the situations and events in the text:

P14: Aru kissaten nite, ueitaa ga hakondekita kōhii ni taishite okyaku ga kujiyō wo iu.

“Doro ga haitteiru zo” to. Shikashi, sore ni taishite uietaa wa kotaeru, “it was ground only half an hour ago” to.

In a coffee shop, in response to the coffee that a waiter brings coffee, the customer complains “there is dirt in it”. However in response to that the waiter replied “it was ground only half an hour ago”.

Participants provided greater detail of character actions. For example, three out of five noted that the customer complained about the dirt - a factor not mentioned in groups 1 and 2.

P11: A customer complained about the coffee.
He called the waiter and complained.

The customer complains.

This indicated situation model construction in terms of character perspectives.

Interestingly, in contrast to the participants in groups 1 and 2, participants in group 3 showed higher level thinking skills by questioning the word *ground*, perhaps in an attempt to better understand it. The following comments illustrate the readers’ abilities to question the text beyond the mere surface level, using top-down and bottom-up processing skills to understand the text and engage with the text actively.

It was simple and easy to understand until the final sentence. I really don’t know what kind of meaning the final sentence included. I wonder if I would understand if I was a native speaker?

I didn’t know what ‘ground’ means. Is it the literal meaning, or is it a joke?

No one appeared to have misinterpreted the use of the word *ground*. Having said that, three out of the five participants simply recalled the same or similar wording as was used in the text, which is not necessarily evidence that they understood the pun.

The waiter responded him that “It’s not surprising since it was ground only 30 min ago”.

The waiter replied “it was ground only half an hour ago”.

It was ground only 30 minutes ago.

Whilst this does show to some extent their understanding that the word is not directly referring to the meaning of *dirt*, the extent to which they comprehend the context, or are just recalling from memory, is unclear. On the other hand, the remaining two participants show an understanding of one of the meanings of the word as may be seen in the following two comments:

Ueitaa wa kotaeru, “it was ground only half an hour ago”.

The waiter replied “it was ground only half an hour ago”.
The waiter said “that is coffee that was made 30 minutes ago, so”-

The coffee was made 30 minutes ago.

In these two cases, the replacement of the word *ground* with *made* suggests an understanding of the context within which the word is used, although there is no evidence that participants have understood the pun in the punchline.

Participants in group 3 continued to question the text as a whole, with evidence suggesting a range of higher level processing skills. For example, the following comment suggests that the participant has an idea that the text is a joke, as suggested through the use of questions.

Was it black humour? Or was it a text simply explaining a situation? [...] Depending on that interpretation, it seems like the intention of the waiter's remark would change.

The assumption that the meaning of the waiter’s remark may change depending on the writer’s intention shows an ability to monitor reading comprehension and consider alternative interpretations. It also illustrates the participant’s awareness that texts can be written and read for different purposes and as different genres; a sign of higher order thinking and text processing. The participant displays a number of effective reading skills including effective situation model construction in understanding the character’s intentions, as well as the ability to use top-down processing skills to construct meaning as a whole and not only to focus on the physical words of the text, and to read for overall coherence. Likewise, the following comment also suggests the use of a number of higher level processing skills.

I thought I could interpret the words, but in actuality my opinion changed on the final sentence. I wonder if there is one correct answer in understanding English literature? Here, the participant indicates that he changed his mind during the reading process as a result of comprehending various elements within the narrative - a particularly important skill in effective reading. Adapting and reconstructing one’s mental text after a sentence has been read suggests that
post-diction is taking place. The participant speculates as to whether there is in fact one correct interpretation - an interesting notion given the double meaning behind the pun in the final line of the text. It is unclear as to whether the participant is referring to this, or is simply expressing confusion over the difficulty of the word-play itself, but it is safe to say that he shows skills of an effective reader, including the monitoring of his own comprehension, which may have resulted in a more comprehensive understanding of the text as a whole.

Group 3’s discussion ran for approximately five minutes and thirty-five seconds. Unlike previous group discussions, group 3’s discussion of text 3 is the first to provide an insight into the effects group discussions have on participants’ overall comprehension of the text. For example, the above comments regarding group 3’s interpretation of the word ground suggest a correct understanding of the term by all five participants. The discussion provides evidence that only through discussion with one another did all participants reach the eventual outcome in which they understood the term. The following comments show how participants worked together to interpret the word ground in the group discussion:

P13:  Saigo wa nan da, kore?

What was the ending?

P15:  30pun mae ni ireta tte koto?

Does it mean it was made 30 minutes ago?

P14:  Boku wa, hinikutta n da to omoimasu ne, kono ueitaa san ga. Datte, 30pun mae made wa… half an hour ago made wa… kōhii no koppu ni haïtta no wa wa chichai na doro to iu no sa, mou, ground… […] Ryōteki ni mo, takusan no tsuchi ga anata fundeiru noni, ima anta ga okotteiru no wa sono kōhii koppu ni haitteiru hon no chichai na doro, ueitaa ga kotaeteiru ne…

I think he [the waiter] was being sarcastic… Like, the dirt that is in the coffee was just ‘ground’ [soil] 30 minutes ago… until half an hour ago… […] Quantitatively speaking, you always step on a lot of earth, and the waiter replies with, so what you’re angry about now is the tiny amount of dirt in the coffee?

P13:  Nanka kore, ‘ireta’ no ga atta yo ne? Nanka, ‘ground’ tte sa, kōhii hiku, grind no kako de ‘was ground’ dakara…

You said, ‘made’ before, right? Well, ‘ground’ means ‘to grind coffee’… ‘grind’s’ past tense… ‘was ground’ etc. So if you think about it like that…
These conversations provide an interesting look at the way in which participants’ opinions and interpretations of the text can be changed and altered as a result of discussion with others in the group.

There were signs of participants’ metacognitive knowledge of effective reading and meaning-making as they discussed the way in which the text was to be interpreted. For example, when speaking on the interpretation of the word *ground*:

P14: Seikai aru no kana? Kō iu sa, yondeiru toki…

*I wonder if there’s a right answer? When reading this kind of thing…*

P13: Iyaa demo kaiyaku no shikata wa jiyū deshō

*Yeah but the way we interpret it is free right?*

P11: Un…

*Yeah-

P14: Sore de, giron shiteiru ue de… dakara… yappashi saigo wa kojin ni yoru no kana-

*Then, as we discuss this…. as expected, the end depends on the individuals-

Here, the participants discuss their beliefs that interpretation is in fact subjective and the product of an individual’s own opinion of the text, and varying analyses may surface amongst the group as a result. This suggests the participants have a metacognitive understanding of the way in which the text may be comprehended.

The concept of questioning the interpretation of the text continued throughout group 3’s discussion as participants began to draw upon their own background knowledge and personal ESL experiences to further gauge the way in which the text was intended to be understood. With English language examinations playing an important role in Japanese students’ university applications, the notion of
English for entrance exams was raised in the discussion in relation to participants' personal experiences of studying English in Japan.

P12: Futsuu ni bunshō wo yondeiru n dattara jibun no kaiyaku no shikata de ii to omou n desu kedo, nanka juken eigo de sodacchatta…

*Perhaps if you’re just normally reading the text then your own interpretation would be fine, but like... I grew up with the English we learnt for entrance exams-*

P13: Seikai ga aru hazu-

*So there should be a correct answer-*

P11: Seikai ga aru hazu dakara bunshō wo yondara kitto michibiku kotae ga aru hazu da to iu no ne…

*There should be a correct answer, so when you read a text surely there’s an answer to derive-*

P14: … Tatoeba, sentaku mondai toka de sa A, B, C, D ga atte, kono yotsu no nakade hitotsu erabe to iwaretara, kore mo kotae ga aru tte koto jan. Dakedo, dou omou ka kake to iwarete, kijutsushiki de iwaretara sa-

*… For example, in multiple choice problems etc where you have A, B, C, D and are asked to pick just one, that has an answer. But if you’re asked to write what you think in the narrative form-*

P13: Un, sore wa jiyū da yo ne…

*Yeah, that's free...*

In this case, participants continue to suggest that interpretation of the text is free because they were asked to write their own opinion on the narrative as a whole.

There was very little indication overall that participants in group 3 had an understanding of text 3 as belonging to the joke genre. Only one participant came close to providing a relevant comment:

P15: *I didn’t know what “ground” means. Is it the literal meaning, or is it a joke?*

Although this is by no means said with certainty, it does suggest that P15 has a suspicion of the text’s genre. The comment expresses his uncertainty between whether or not the text is a joke, which suggests that he has tried to identify the text as a joke (as opposed to a narrative or poem, etc). The participant has used existing background knowledge of textual features common in jokes using both bottom-up and top-down processing skills to draw such a conclusion. Whether or not he then used this knowledge to interpret and comprehend the text, however, is not clear based on his other comments.
4.2.4 Text 4

Unlike texts 1, 2, and 3, text 4 was an expository article (Bug Bites, 910, see Appendix 7). Because it is not a narrative text, participants’ comprehension of the text cannot be analysed in accordance with Zwaan et al.’s (1995) Event-Indexing Model. Instead, the extent to which participants’ written recalls relate to the overall surface structure and textbase, as outlined by Meyer (1975), will be used to evaluate their overall comprehension of the text as a whole.

Table 4.22 summarises the total number of words written by each group for their recalls of text 4, with Table 4.23 showing the total number of words per group for their response comments.

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>123</td>
<td>25</td>
</tr>
<tr>
<td>Group 2</td>
<td>143</td>
<td>29</td>
</tr>
<tr>
<td>Group 3</td>
<td>154</td>
<td>31</td>
</tr>
</tbody>
</table>

Table 4.22: Total number of words for written recalls per group for text 4.

<table>
<thead>
<tr>
<th>Group</th>
<th>Words in total</th>
<th>Average words per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>Group 2</td>
<td>107</td>
<td>21</td>
</tr>
<tr>
<td>Group 3</td>
<td>141</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 4.23: Total number of written response words per group for text 4

Table 4.24 provides a summary of how many participants in each group mentioned individual textual features and specific reading conventions involved in outlining the overall surface structure and textbase necessary for the successful comprehension of expository texts.
4.2.4.1. Group 1

Group 1 provided a total of 123 words for their recall of text 4 (an average of twenty-five per participant), fourteen and twenty percent less than groups 2 and 3 respectively. Much like with texts 1, 2, and 3, group 1’s recall of text 4 was simple in detail throughout. The majority of the comments provided by participants touched on the major topics addressed in the article (macro-propositions), but very few looked further at the underlying less prominent issues in the text (micro-propositions). Simple comments ranged from single words to short sentences, but on the whole remained basic in form. For example:


P2:  *It’s not unusual to eat bugs.*
P4: Jissai **bug** wa eiyōka mo takaku, taberareru mono de aru.

*Bugs are actually a very nutritious and edible thing.*

P5: *Eating insects is common in the world.*

Although this shows the participants’ ability to recall important conceptual sections, a necessary skill in effective expository reading, identifying such concepts suggests a relatively low level of competency in reading, and is not necessarily a sign of readers’ comprehension proficiency on the whole (Leslie & Caldwell, 2011).

One participant did show a somewhat greater comprehension of the text, referring to a much less prominent textual element and recalling the opening joke to get the audience’s attention. What is interesting about his comment is the fact that it was reworded, showing his understanding of the joke as a whole, rather than simply the ability to recall the surface text. P3’s comment is compared to the original text (OT):

OT: Have you heard the one about the customer who finds a fly in his soup? Outraged, he points it out to the waiter, who says, “Keep your voice down, or everybody’ll want one!”

P3: Hae ga haitta sūpu ni taishite “minna hoshigaru kara” to iu jōku.

*A joke in regards to a fly in your soup saying “because everyone wants one”.*

The majority of the participants within group 1 also voiced their opinions on the content of the article, linking what they had read to their own viewpoints:

P1: *Interesting and gross.*

P3: … Mushi wo taberu no wa kanben da to omoimasu.

… *I don’t think I can eat insects.*

P4: Boku wa **bug** wo tabeyō to wa omoimasen (ikura eiyōka ga takakutemo). Ōku no hito ga ima demo tabeteiru koto ni odorokimashita.

*I don’t think I could eat bugs (no matter how nutritious they are). I was surprised that even now so many people eat them.*

P5: Kono kiji wa kimochiwarukatta. […] Mushi ga taberarenai.

*This article was quite gross […] I cannot eat insects.*
Such comments show effective reading skills - participants drawing on their own background knowledge of societal and cultural norms to form opinions on the content of the article, although sometimes they were simply reacting emotionally based on their own preferences. The same can be seen in the following comments in which participants responded to a mention of their home country in the text, which states that baby bees are sold and eaten in Japan.

P1: *I rarely saw baby bees at supermarket in Japan.*

P3: *Kono tekisuto de wa hachi to arimashita ga, nihon de yūmei na no wa kōrogi no tsuku dani da to omoimasu.*

*In this text it said bees, but I think the famous one in Japan is crickets in soy sauce.*

By stating “*In this text it said*”, P3 suggests a level of bottom-up processing skills used as the basis for forming the opinion that follows.

Overall, participants in group 1 touched only on the surface topics presented in the text (macro-propositions) with very little attention given to the features such as the structure of the passage, the ranking of ideas in terms of importance, the linking of such ideas in the article. Despite this relative lack of detail in textual recall, participants appeared to find text 4 interesting and enjoyable to read, as is apparent in the following comments:

P1: *Interesting and gross.*

P2: *It made me interested because this type of content is more easy to understand.*

*Hajimete shitta jyōhō mo arum benkyō ni narimashita.*

*There was information that I didn’t know, so it became study for me.*

P5: *Quite gross, but very interesting.*

There was little evidence that participants in group 1 had an understanding of text 4’s expository nature and that it thus required information-driven reading. The one and only response comment that provided any insight into the matter mentioned that the text was an article, although there is no further evidence to suggest that this affected the way in which the participant comprehended the text as a whole.

P5: *Kono kiji wa kimochiwarukatta.*

*This article was quite gross.*
4.2.4.2. Group 2

Group 2 provided a total of 143 recalls words, an average of twenty-nine per participant. Comments had greater detail than those of group 1, suggesting a much greater comprehension of the text both in detail and in making links to the broader issues raised in the article. Much as did group 1, group 2 showed a competent understanding of the basic concepts of the article:

P6:  Hoka no kuni de wa mushi wo taberu! […] Kōrogi, batta, shiroari.

*People eat insects in other countries!* […] *Crickets, grasshoppers, termites.*

P8:  Sekai ni wa mushi wo taberu hito mo takusan iru.

*There are a lot of people in the world who eat insects.*

P10:  Kōrogi to mushi wo taberu shokubunka nitsuite no kiji datta.

*It was an article about the food culture of eating crickets and insects.*

What separates group 2 from group 1 is the level of detail that participants provided beyond the mere basic and fundamental ideas presented in the text. Participants went on to look at why people eat bugs across the world, with all five participants in the group recalling the nutritious value of insects in one form or another; a concept that was mentioned in the text.

P6:  Karada ni mo yoi, mukashi no hito mo tabeteita.

*They’re good for you, and people used to eat them in the past.*

P7:  **Bugs are very** eiyōka.

**Bugs are very nutritious.**

P8:  Mushi wa gyū to kurabetemo karushiumu no eiyō ni tomi, chikyū ni mo yasashii.

*When compared to beef, insects are rich in nutrients such as calcium, and are also good for the planet.*

P9:  Mushi ga karada ni yoi. […] Niku yori mo yoi.

*Insects are good for your body. [...] They’re also better than meat.*

P10:  Kōrogi wo taberu koto wa mushi wo taberu koto yori mo eiyō ga atte karada ni ii shi aburabō ga sukunai kara ii.

*Eating crickets is more nutritious, better for your body, and less fatty than eating beef, so it’s good.*
Such comments suggest that participants have an understanding of the content of the article that surpasses the macro-structure of the text, perhaps utilising top-down reading skills to look beyond the simple fact that insects are eaten worldwide to determine for what purpose they are eaten. However, participants suggest an even further understanding of the text through comments made on the future outcomes that may result from eating insects, extrapolating the basic themes of the text to a broader context. For example:

P7: **Humans should eat bugs for** sekai no jinkō sōku ni taisuru shokuryō mondai.

*Humans should eat bugs for the world’s population increase in response to food problems.*

P8: Shōrai wa mushi ga motto taberareru you ni naru kamoshirenai.

*Insects might be eaten more in the future.*

P9: Koko de itteiru no wa kongo hitobito wa mushi wo taberu beki da to iu koto.

*What they’re saying here is that from now on people should eat insects.*

Here, participants are showing their ability to recall more than the basic information from the text. In recalling the fact that insects are eaten across the world, for what reason, and the potential future benefits of insect consumption, participants in group 2 begin to suggest an understanding of the micro-propositions within the passage. They also show signs of being able to rank the elements within the article in terms of order of appearance (and subsequently in order of importance as determined by the structure of the article), and make links between these elements to form conclusions. This suggests a solid comprehension of the text as a whole. P9’s comment “*What they’re saying here...*” also suggests bottom-up processing skills and his interaction with textual elements as he attempts to comprehend the information as a whole.

Much like with group 1, participants in group 2 also expressed their interest in the text overall:

P8: Kyōmibukai kiji datta

*It was a very interesting article!*

P9: Kyōmibukai bunshō datta.

*It was a passage of great interest.*

P10: Omoshirokute kyōmibukakatta.

*It was very interesting.*
Group 2’s discussion of text 4 ran for approximately two minutes and forty-five seconds with a number of pauses in between. To begin with, issues discussed amongst participants built upon the main topics mentioned in the individual written recalls. For example:

P9:  *The author said we human beings have to eat insects as a food instead of pork, beef, and chicken, so the author says it’s very better for the body so we should eat insects. I know that in other countries people eat insects, for example in China and Africa, but I can’t - it’s impossible for me to eat insects!*

P6:  *Me too!*

As the discussion progressed, it also dealt with concepts that did not appear in the participants’ individual written recalls. For example, the notion that baby bees are sold and eaten in Japan (mentioned by P1 and P3 in group 1). In discussing this, participants drew upon their own background knowledge and made connections with real life experiences. For example:

P7:  *In Japan it says we have baby bees-*

P6:  *Yeah baby bees in the supermarket shelves…*

P8:  *I’ve never eaten it.*

P10:  *I’ve never seen it!*

P6:  *My mum does-*

P10:  *Really?!*

As is often an advantage in group discussions, participants in group 2 were able to scaffold one another in understanding areas of difficulty, thus advancing the textual comprehension of all those within the group.

P7:  *What does it mean cockroach of the sea?*

P6:  *Lobster?*

P7:  *Oh lobster! It means lobster? Hmm... Quite interesting.*

Likewise, participants also engaged in the use of translation to scaffold one another’s comprehension of particular aspects in the text:

P10:  *How do you say crickets in Japanese?*

P6:  *Korogi.*

P10:  *Ah…*

Two participants in group 2 provided basic recall comments that suggest a minor understanding of the text’s overall genre, referring to the text as an “article”. However, based on the comment alone, the extent to which this effected their understanding of the text as a whole is not clear.
P8: Kyōmibukai kiji datta

*It was a very interesting article!*

P10: Kōrogi to mushi wo taberu shokubunka nitsuite no kiji datta.

*It was an article about the food culture of eating crickets and insects.*

**4.2.4.3. Group 3**

With 154 recall words in total (an average of thirty-one per person), and 141 response comment words, seventy-one and twenty-four percent more than groups 1 and 2 respectively, group 3 provided the largest, and most comprehensive recall of text 4 out of all three groups. Recall comments reached a level of depth untouched on by groups 1 and 2 with participants recalling specific elements of textual detail and linking these together to construct meaning for the article as a whole. As with both the previous groups, group 3 began with simple comments on the underlying message of the text:

P13: Mushi wo taberu bunka mo aru (Africa, South America, Asia etc.).

*There is a culture of eating insects (Africa, South America, Asia etc.)*

P15: People eat bugs throughout the world.

All five members of the group quickly moved on to provide detail into the benefits of insect consumption as a reason to why they are eaten. For example:

P11: Bugs contains high protein and effective product comparing to dairy.

P12: Mushi wa tanpaku shitsu ga hōfu de taberu koto wa ningen ni totte ii koto de aru.

*Insects are rich in protein and eating them is a very good thing for humans.*

P13: Mushi wa eiyōbun wo takusan fukundeite, kankyō ni mo ii shi.

*Insects include a lot of nutritious parts and are also good for the environment.*

P14: Mushi wo shokuji toshite toriatsukatta kiji.

*It is an article dealing with eating insects as food.*

P15: Insects are very nutritious, good for you, and for the environment.
This causal linking of textual ideas, as was also seen by members of group 2, suggests effective reading skills by participants. However, what suggests an even greater comprehension is the extent to which participants in group 3 linked micro-propositions to construct a coherent textbase. For example, as in group 2, participants also commented on future implications and potential outcomes of eating insects:

P12: Mushi wa mirai no shoku ni oite hijyō ni jyūyō de aru.

Insects will be very important in food in the future.

P13: Chikyū no jinkō wa outnumbered dakara só iu men demo, mushi wo shoku ni toriireru no wa yoi.

The planet’s population is outnumbered, so in that sense, it would be good to adopt them as food.

What makes participants in group 3 stand apart from the other two groups is the fact that all five participants have taken their connections of ideas presented within the text and related textual elements and propositions to what they know about their own social expectations and cultural norms. For example, by stating that what one believes to be socially acceptable is the product of the society in which they have been raised, and such habits may vary depending on the subjects involved. This was particularly prominent in the following response comments:

P11: The feeling of gross might be dependent on the culture they used to […] Nani wo kimochiwarui to onō no ka wa bunkateki haikai ni mototsuku.

[...] What you think is gross is based on your cultural background.

P12: Shokubunka wa kuni ni yotte samazama da to omotta.

There are various food cultures depending on the country.

P13: Mushi wo taberu koto ni teikō ga aru ka nai ka wa bunka shidai nan darō.

I think whether or not you have a resistance to eating insects is dependent on your culture.

P14: Kekkyoku, shoku ni kyōtsū no sutandaato nado naku, dore ga kimochi warukute dore ga futsuu na no ka wa kuni ni yotte kotonaru mono da to kakareteita.

In the end, it is not that there is a common standard in food. It says that what is gross and what is normal is something that varies depending on the country.
P15: Kimochiwarusō kamoshirenai no desu ga, kore wa jibun no kuni to sono bunka ni yorimasu. Shōrai wa mushi wo taberu beki desu.

*It might seem gross, but this view depends on the country and the culture that you live in. In the future we should eat bugs.*

Interestingly, these comments are presented in one of two ways: 1.) as a fact, or 2.) as an opinion. The majority are presented as fact (P11, P12, P14, P15), however P13’s inclusion of the phrase *I think* suggests that the following sentence is a conclusion drawn by the participant herself, perhaps by drawing upon background knowledge and top-down reading skills in the process. In forming such opinions, participants show signs of effective reading skills and consequently textual comprehension on the whole.

Participants express personal opinions about textual elements and propositions and relate them to other concepts not mentioned specifically in the text, for example:

P11: Shokubunka wa takoku kara kanshō tereru beki de nai to sainen no hogei mondai wo omoidashi kanjita.

*In recalling the recent whaling problem, I felt that food culture should not be influenced by other countries.*

P13: Mushi wo taberu no wa *gross* da na tte omou kedo, mushi wo taberu koto no hito e no, kankyō e no meritto wa wakatta.

*I think that eating insects is *gross*, but I understand the merits of eating insects to both people and the environment.*

P11’s opinion is based on personal knowledge (whaling in Japan). By mapping the incoming textual information onto her existing knowledge structures, an in-depth comprehension is effected and meaning is constructed. Much like in groups 1 and 2, participants held strong experience-based opinions of their home country, Japan, which they compared to textual information, as is noted in the following response comments:

P13: Nihon de *can of baby bees* ga utteru tte atta shiranai!

*In Japan it said they sell *cans of baby bees*, but I didn’t know that!*

P15: Nihon de mushi wo taberu tte kakareteita kedo, boku wa tabemasen!

*It says we eat bugs in Japan, but I don’t. I can’t eat them.*
P13’s comment “In Japan it said they sell cans of baby bees”, and P15’s comment “It says we eat bugs in Japan” both indicate that the participants have engaged in bottom-up processing skills, taking the information from textual elements to form opinion-based statements that follow.

Perhaps the best indication that participants within group 3 had a solid comprehension of the text overall was their ability to question the text and the ideas raised within, and to extrapolate on the textual information. For example:

P14: Wareware no sōsen ga futsuu ni tabeteitemo, korekara no sedai no mono tachi wa shokubunka toshite keireru koto ga dekiru no darō ka?

*Even though our ancestors ate them normally, I wonder if people of the coming generations can accept insects as food?*

P15: Samazama na bunka wa mushi wo futsuu ni taberu nanka omoshiroi. Nihon ni mo sō iu koto ga aru darō ka? Tabun tako?

*It is interesting that many cultures do eat them [insects], and that is normal. I wonder if Japan has anything like that? Maybe octopus?*

Here, participants not only relate the textual information to their own existing knowledge and beliefs, but also show important signs of effective reading skills in questioning what they read; a significant element in the successful comprehension of the text as a whole.

Group 3’s discussion of the text ran for approximately five minutes and twenty seconds. Similarly to group 2, participants expressed their general dislike for the topic of the article:

P14: Otona no ore kara shite mo sore wa kimochiwarui to omotta.

*Even for me as an adult, I thought that was gross.*

However they also discussed why this may be the case, looking beyond the fact that they found the eating of insects to be gross and relating the issue to existing knowledge.

P14: Kimochiwarui ka sa, kimochiwarukunai ka to kekkou jibun no kuni toka sō iu bunka de kimerarechatterun de, jissai ni chotto ippō soto ni detara, sore ga tsūyō shinai? Tatoeba, nihon de, tako… are tashika, ejiputojin ni tako taberu ka to kiitara tabenai to omou. Tako mo kimochiwarui to itte… Demo nihonjin tako daisuki-

*Whether or not it’s gross is decided by your country and culture, and so in actuality, once you step out of that, that’s quite valid. For example, the octopus in Japan… if I recall correctly, when an Egyptian was asked if they ate it, they said no and that octopus was gross. But Japanese people love octopus—*
The majority of group 3’s discussion centred on participants’ prior knowledge and opinions of the insect-eating-culture in Japan. Participants related what they had read to their own experiences and general understanding of the food culture in their home country, using top-down reading strategies. As in group 2, the topic of baby bees being sold in Japanese supermarkets was touched on, however participants in group 3 extended the topic by questioning the reliability of the text.

P11: Un, datte, hachi no kan ga nihon de utteiru tte kaitearu jan, supaamaaketo de-
Yeah, I mean it says here that they sell cans of bees in Japan, at the supermarket-

P13: Utteiru?
Do they really though?

Although some participants remained skeptical of the notion, perhaps resulting from a lack of relevant knowledge, it was through further discussion with one another that they reached the conclusion that insects were in fact eaten in Japan; a conclusion based beyond the content of the article on the background knowledge of those within the group.

P12: Nihon taberu ka?
Do we eat them [insects] in Japan?

P15: Nai to omou-
I don’t think so-

P15: Aa demo inago ga…
Ah but somewhere, grasshoppers...

P11: Sou inago ga inaka toka de…
Yeah in the country they eat grasshoppers...

P14: Yamanashi-ken de kekkō taberun desu yo.
They eat them quite a bit in Yamanashi.

By drawing upon such background knowledge, participants utilise top-down reading skills to effectively comprehend the text and construct meaning. Higher order processing skills were again seen when participants then took such ideas and related them not only to what they know of their home country and culture, but also to other texts they had read. For example:

P13: Kono tekisuto janai kedo, nanka de yonda koto ga atte, nanka chikyū hontō ni **over populated** dakara, fūdo tarinakunaru kara, dōbutsu toka yori, mushi ga korekara tabemono toshite, sono jūyō ni nattekuru mitai na tekisuto o yonda koto ga aru no. Dakara nanka, sou iu **population** no koto wo kangaeru to sō kamoshirenai kedo, aaa demo chotto…
It’s not really in this text, but in something else I’ve read before, it says that the earth is really overpopulated and the food will become insufficient, so from now on insects will become more important than animals as a food source. So, like, if you think about the population issues then maybe it’s ok, but... hmmm.. it’s a bit...

P11: Midori mushi no baajon o nanka kiita koto ga aru-

Yeah I’ve heard a version of that with euglena-

In relating the article to other texts, participants show a range of effective reading skills consistent with an advanced level of reading comprehension; all of which help in the overall comprehension process of the text.

Much like in groups 1 and 2, participants in group 3 identified text 4 as an article, as shown in such recall comments as:

P14: Mushi wo shokuji toshiite toriatsukatta kiji.

It is an article dealing with eating insects as food.

P12: Shashin wo mitemo kijō wo yondemo shōgeki teki na koto ga ōkatta.

Even just looking at the pictures and reading the article there was lots that I was shocked at.

They also discussed the information in the text, commenting amongst other things on the reliability and veracity of the information (e.g. discussing whether bees are actually sold and in Japan, and whether or not other insects are eaten in Japan). Such comments distinguish the reading of fact from the reading of fiction in which readers do not require the information to be true.

4.3. Perspectives on L1 and L2 use

Participants’ opinions on the use of the L1 in the L2 learning environment varied in accordance with the context, but they were, in general, open to its overall use. When asked whether or not they personally liked to use the L1 when learning the L2, participants answered in the following manner:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>I don’t mind</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.25: Participants personal preferences on use of L1 in L2 learning process.
As is perhaps expected of L2 learners accustomed to communicative views of L2 learning which favour the use of the L2, one third of the participants viewed the use of the L1 as negative in the L2 learning environment:

P9: *I don’t like it [L1] because using only the L2 is more helpful to learn the L2.*

P11: *I think it is easy to learn a foreign language in the first one, but this is not effective to improve the second one, so I don’t like to use the L1.*

P12: *I think we can learn better in L2.*

On the other hand, there were also participants who, despite being against use of the L1 in some cases, were open to its use in certain circumstances.

P6: *Dai ni gengo wo tsukatte manabu hou ga chikara ga tsuku ki ga suru ga, bogo wo tsukau koto mo toki ni wa hitsuyō da to omou.*

*I feel as though you will gain more strength by using the L2 to learn, but there are times when you need to use the L1 too.*

P7: *Dekireba bogo nashi de manabitai ga, dōshite mo rikai dekinai baai wa bogo ni tayoru shika nai.*

*If possible I’d like to learn without the L1, but I have no choice but to rely on the L1 in times when I can’t understand no matter what I try.*

P10: *Gainenteki ni kangaeru to, bogo wo tsukau koto de dai ni gengo wo manabu kikai no samatage wo suru to omou. Ippō, kojinteki ni wa, toki to baai de tsukaiwaketara, bogo wo tsukau no wa ii to omou.*

*Thinking conceptually, I think using the L1 is an obstruction on the opportunities to learn the L2. On the other hand, properly using the L1 depending on the time and situation can also be good.*

P14: *I think most of the time the L2 can be more beneficial, but I like using the L1 when I cannot understand.*
Interestingly, some participants were even able to provide opinions on the conditions under which they believed each language should be used throughout the L2 learning process:

P3: Ryohō wo tsukaiwakeru. Chūgaku, kōkō wa bogo de yokatta kana… kihon dakara! Mazu kihonteki na dai ni gengo no benkyō wa bogo ga i to omou (chūgaku). Kōkō wa 2 shūrui arimashita. Eigo dake de hanashichaikenai jyōkyū na kurasu mo atte, sore wa yokatta to omou.

*I use them [L1 and L2] both separately. In middle and high school it was good to use the L1... because it was basic! I think that studying those basic L2 things in the L1 is good to start with (middle school). In high school, I had 2 kinds of classes. There was a class where we could only speak in English for more advanced level, and this was good.*

P8: Kihon wa L1 de osowaritai. Teichaku suru made wa L1 de mananda hō ga stress free! Kaiwa wa L2 de osowaritai. Yori jitsuyōteki na no wa L2 kara erareru to kangaeru kara.

*I want to be taught the basics in the L1. Learning in the L1 until you get established is more stress free. I want to be taught practice conversations in the L2, because I think about practical things I can get from the L2.*

Despite many of the above negative views participants held towards use of the L1 in the L2 learning process, when asked whether they saw any benefits in using the L1 in their own L2 acquisition process, participants answered in the following manner:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>

*Table 4.26: Participant perspectives on benefits of L1 in L2 learning process.*

What is interesting to note is that one-hundred percent of the respondents saw at least some benefit in using the L1 in their own L2 learning process, regardless of whether or not they personally favoured its use. Participants outlined eight main situations in which they saw benefits in using the L1:

1.) As a comprehension aid to understand the L2.

P1: Fukaku rikai suru toki ni wa bogo wo tsukau beki da to omou.

*I think you should use the L1 to deeply understand the L2.*
In order to understand the word which is hard to understand only by being explained in the L1.

During reading when I can’t understand.

Especially when the L2 is too difficult to understand, e.g. vocab words.

2.) To appreciate subtleties of the L2.

Bokokugo wo tsukattara komakai chigai ga wakaru.
*If you use the L1 you can understand the finer nuances.*

Dai ni gengo/ bogo no komakai nyūansu wo kumitoru no ni benri.
*It’s useful to understand the finer differences between L1/L2 nuances.*

When we cannot understand small differences in the L2 words.

3.) When starting out learning the L2.

When we started to study the L2 it is difficult to learn the meaning of the L2 without using the L1.

When you start learning the second language, you have to learn that by using the mother tongue, but after that level is up to a certain degree, studying the second language in that one is better.

It is useful to help understand at the beginning.

4.) To lower learners’ stress levels (lower their affective filters) and to provide reassurance throughout the learning process.

Shitsumon shiyasui. Tatoe sore ga donna ni hisai de dōshiyou mo nai koto da toshitemo ki ga raku.
*It’s easy to ask questions. No matter how insignificant or helpless something is, I am at ease.*

Using just the L2 would make learners stressed I think.
P8: *Learning in the L1 until you get established is more stress free.*

5.) For self-reassurance/confidence.

P8. L2 wo mochiru ga hontō ni rikai sekiteiru no wa fuan ni natta toki.

*When I’m using the L2 but worry about whether I really understand.*

6.) When looking up unknown words.

P7: Shiranai goku wo shiraberu toki.

*When looking up parts of the language I don’t know.*

P14. *I think it’s good. Particularly when you’re confirming the meanings of words etc., it’s easy to understand if you use the L1.*

P15: Tango no imi wo shiraberu toki. L1 kara L2 he honyaku suru toki.

*When looking up the meaning of words. When translating from the L1 to the L2 using a dictionary.*

7.) When thinking of new ideas.

P10: **Writing** de idea wo kangaeru toki.

*When thinking of ideas in writing.*

Participants were also asked when they found use of the L1 to be least beneficial in the L2 learning process, and identified two main areas of interest. Most agreed that, whilst the reading domain may receive benefit from use of the L1, speaking, listening, and writing do not.

1.) Speaking, listening, and writing.

P3: **Speaking, writing, to listening** wa sono gengo de yaru shika nai.

*Speaking, writing, and listening can only be done in the L2.*

P10: **Speaking** ya **listening** ni wa teki shiteinai to omou.

*I don’t think it is appropriate for speaking and listening.*

P12: *It is not helpful in speaking or listening.*

P13: *We have to practice speaking in the L2 to get better, so the L1 does not help here.*
Participants were also asked whether or not they made use of the L1 when studying by themselves outside of the classroom, with the majority of the participants admitting to its use at least some of the time.

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Sometimes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 4.27: Participants’ personal experience making use of L1 to study L2.*

Only two out of the fifteen participants claimed they never employed the L1 when studying outside the classroom environment. Of those thirteen participants who said “yes” to “often” or “sometimes” using the L1, the majority claimed to use it for looking up unknown vocabulary.

- P6: *Dai ni gengo no tango wo oboetari shirabetari suri toki ni bogo wo tsukau.*
  I use the L1 when I’m looking up and remembering L2 vocabulary.

- P9: *When I consult a dictionary to know the meaning of unfamiliar words.*

- P12: *Sometimes when I cannot understand English I will look it up in Japanese.*

Participants were asked in which language they preferred to receive instruction in the L2 classroom. Forty-six percent of participants preferred to be taught in the L2, with thirty-three percent stating they liked to have both languages in the L2 classroom, and only twenty percent favoured the use of the L1 exclusively.

<table>
<thead>
<tr>
<th>L1</th>
<th>L2</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 4.28: Participants’ personal preferences on language of instruction in L2 classroom.*

This finding suggests a clear preference for the use of the L2 in the classroom. However, what is interesting about these numbers is that, when asked in which language they would prefer to discuss an L2 text to improve their comprehension, eighty-seven percent of the participants claimed to prefer L1 discussions; a forty-seven percent increase in language preference for classroom instruction.
Table 4.29: Participants’ personal preferences on language for discussion of L2 texts.

The reasons for this significant inclination towards L1 discussions seem to centre around the idea of more effective communication, for example:

P11: *We can communicate with others effectively in the L1 rather than in the L2.*

P12: *I think we can discuss it more deeply than in L2 which is better.*

And deeper comprehension:

P7: *Bogo de hanashiau hou ga tekiisuto he no rikai wa fukamaru to omou.*

*I think discussing it in the L1 deepens your understanding of the text more.*

P15: *Dokkai no sai ni gokai shiteiru koto ga aru kamoshirenai node, L2 de hanashita sai ni sore ga ookiku natteshimau kamoshirenai.*

*When you’re comprehending a text there might be times when you misunderstand something, and if you discuss it in the L2, that misunderstanding might get bigger and bigger.*

Finally, participants were asked to rate on a scale of one to five how important they believed the use of the L1 to be in each of the four main language domains: reading, writing, speaking, and listening. The averages of these ratings by all fifteen participants are displayed in table 17.

<table>
<thead>
<tr>
<th>Reading</th>
<th>Writing</th>
<th>Speaking</th>
<th>Listening</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.30: Participants’ average rating on scale of 1-5 for each language domain in terms of L1 importance.

With an average ranking of four out of five, most participants agreed that the use of the L1 is beneficial to the L2 reading process. Many believed that translation from the L2 into the L1 enhances comprehension:
I think studying **reading** and **writing** whilst comparing the L1 and L2 is useful.

When I read English texts in Japan, I translate them into Japanese.

In times when I have to really understand the text I translate the whole thing into Japanese.

I often translate English texts in Japanese when I cannot understand words/phrases. I also think about what I will write in Japanese before I write in English.

Participants also considered the use of the L1 important in L2 writing, particularly in the planning stages of the writing process.

I think about the grammar in English, but what I want to write in Japanese.

The domains of listening and speaking were considered the least likely to benefit from the use of the L1, with a rating of just two out of five for each.

I don’t think it [L1] is appropriate for speaking and listening.

I don’t think it [L1] is helpful in speaking or listening.

Listening and speaking should be done in the L2 only to improve.

Interestingly, one participant considered the use of the L1 incredibly important and ranked its use a five out of five in all four language domains. She stated that:

In everything it is very important to use the L1. Because every aspect is connected with each other, so I can’t say for example, the L1 is important in reading, not important in listening etc. The L1 helps you improve the L2 in every aspect.
Finally, participants from groups 2 and 3 were asked whether or not they had found the group discussions to be helpful. Of the ten participants who could have answered this question (five each from groups 2 and 3), only five did. All five participants responded positively to discussions.

Participants from group 2 who discussed the texts in their L2 (English) commented on the benefit of receiving alternative interpretations and ideas from other participants that they had not thought of themselves:

P6:  *It was helpful to get another perspective on the texts, which sometimes changed the way I thought about it too.*

P8:  *Yakunitatta. Otagai no kangae ga wakatte, tekisuto jitai mo kioku ni nokotta.*

   *It was helpful. Understanding each other’s thoughts/ideas, the text itself stayed in my memory.*

P9:  *Yakunitatta. Hoka no menbaa mo onaji tokoro de tsuzsuiteita toki no anshinkan.*

   *Hoka no kaishaku no shikata mo aru to iu kaitō no kanōsei no hirosa wo manaberu.*

   *It was helpful. The peace of mind when other members were stuck at the same place as me. I could learn of the broad possibility that there are other interpretations of the answer.*

Participants in group 3, who discussed the texts in their L1 (Japanese), mentioned the ease they felt in being able to discuss complicated matters in Japanese that they would not have been able to discuss in English:

P11:  *Jibun ga rikai dekinakatta tokoro wo nihongo de disukasshon dekita node, yakunitatta. Eigo de no disukasshon de wa kitto rikai dekinakatta to omou.*

   *It was helpful to discuss the parts I didn’t understand in Japanese. I don’t think I would have understood if it was a discussion in English.*

P14:  *It’s a nice idea to talk about English written contents in Japanese. But I guess it depends on which contents to discuss that how helpful such a discussion turns out to be. It’s useful towards news articles (or objective story) more than toward verbs (or subject story).*
P14’s comment on the types of reading material in which he believes L1 discussions are best suited is interesting, although he does not provide any reasons for this claim. However, this may be related to the final set of data that participants provided regarding their opinions on the four texts used within this study.

Participants were asked which of the four texts they thought to be the most difficult, and which they thought was the easiest. Of the fifteen participants, only eleven provided feedback on this question. The results are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Text 1</th>
<th>Text 2</th>
<th>Text 3</th>
<th>Text 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Hard</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Table 4.31: Participant perspectives on which of the four texts was easy and which was difficult.*

One-hundred percent of those who answered the question claimed text 1 (poem) to be the most difficult, with just over half of the participants stating text 4 (expository text) was the easiest. These comments can be compared with P14’s comment above, in which he states “It’s [L1] useful towards news articles (or objective story) more than toward verbs (or subject story)”. Text 4 can be considered a “news article (or objective story)”, and text 1 can be considered a “subject story” or narrative. The following comments provided by participants on why they thought text 1 to be difficult and text 4 to be easy shed further light on P14’s belief that L1 discussions are better suited to expository texts than narratives.

Participants provided the following comments on why they thought text 1 was the most difficult:

**P1:** Text 1 wa muzukashikatta. Tango, bunpou, dochira mo muzukashikatta.

*Text 1 was difficult; both the vocabulary and grammar.*

**P5:** Text 1 was the hardest one. I totally don’t get what the writer’s intention and its content is.

**P8:** Text 1 was difficult. I couldn’t understand the context at all. The vocab was so hard.

**P12:** Text 1 was the hardest. It had a lot of words I did not know, and I couldn’t imagine the situation very well.
On the other hand, participants had the following to say regarding their thoughts on the simplicity of text 4:

**P2:** The fourth material is the easiest. Since all of us (participants) are interested in the theme, it’s even enjoyable to read.

**P7:** Text 4 is the easiest. Though the text is long, I found it quite easy to understand since it was written in simple words. The topic was interesting and perhaps maybe familiar with us?

**P12:** Text 4- that was friendly and assessable! And it made me interested.

There was no evidence to suggest that participants from different groups held varying perspectives on the ease and difficulty of the texts.
CHAPTER FIVE
DISCUSSION

5.0 Introduction

In Chapter Five, I present the discussion of the findings from the participants’ written recalls, response comments, group discussions, and responses to the questionnaire. Discussion of the findings is organised into five sections: text 1, text 2, text 3, text 4, and perspectives on the L1 and L2 use. The key findings related to L1 use in L2 reading comprehension, and participant perspectives on the L1/L2 relationship are discussed with reference to the relevant literature.

5.1 Language choice

Japanese was the language of choice for all written responses, employed eighty-three percent of the time overall with English the language of choice just seventeen percent overall (based on overall word count).

<table>
<thead>
<tr>
<th>Section</th>
<th>Japanese</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text recalls</td>
<td>85% (1611/1889)</td>
<td>15% (278/1889)</td>
</tr>
<tr>
<td>Response comments</td>
<td>85% (1095/1290)</td>
<td>15% (195/1290)</td>
</tr>
<tr>
<td>Perspective-based questions</td>
<td>78% (804/1034)</td>
<td>22% (230/1034)</td>
</tr>
<tr>
<td><strong>Average total</strong></td>
<td><strong>83% (3510/4213)</strong></td>
<td><strong>17% (703/4213)</strong></td>
</tr>
</tbody>
</table>

Table 5.1: Summary of the use of Japanese/English in all written response sections.

As such, it is natural to conclude that participants favoured the L1 for their written recalls. This may be due to a number of factors including that the use of the L1 facilitates higher level comprehension (Sweetnam Evans, 2011), eases the cognitive load (Scott & De La Fuente, 2008), helps individuals to understand difficult ideas or concepts (Seng, 2006) and/or compensates for a lack of vocabulary/grammatical knowledge (Kern, 1994).

What this finding suggests is that any inaccuracies and misinferences in the participants’ written recalls and response comments are not necessarily the result of insufficient L2 productive competence. If a participant has written a comment in the L1, but has not recalled certain textual elements, one can, in most cases, attribute this to their lack of textual understanding and not to their
lack of L2 productive ability (Lee, 1986). On the other hand, it is also possible that certain elements were forgotten, suppressed (Gernsbacher & Faust, 1991), or that the participants just did not bother to indicate certain elements in the written recalls. Absence of an element is not necessarily an indication of miscomprehension. Readers may, for example, have developed quite complex situation models and textbases mentally but just not produced them in their recalls.

5.2 Recalls and responses

Group 3 showed the greatest average word count across both their written recall and response comments, as well as in their verbal discussions of each of the texts. Overall, participants in group 3 provided thirty-four and twenty-two percent more recall words than groups 1 and 2 respectively, fifty-three and eighteen percent more response comment words than groups 1 and 2 respectively, and a large seventy-three percent more average words in their group discussions for each of the four text than group 2. This indicated that participants in group 3 had more to recall and say about the texts, suggesting the benefit of discussing texts in the L1 with confidence without the stress or restriction of unknown L2 structures or vocabulary (Phakiti, 2006).

5.2.1 Text 1 (July, 88)

5.2.1.1 Group 1

Group 1’s recall of text 1 was very simple in both form and detail, lacking many elements of a developed situational model, suggestive of a relatively low level of comprehension overall (Mohamad, 1999). Most participants recalled mainly elements of the surface level of the text. Comments touched on subject matter, character, and briefly on setting too. However, there were few comments containing any more of the textual elements involved in the successful construction of a situation model. This suggests that participants did not successfully construct coherent meaning for the text overall, and were therefore not overly successful in its comprehension. Furthermore, there was no evidence to suggest that participants had made connections between textual elements or related the information they had read to their own personal experiences and background knowledge. Similarly, participants also showed no understanding of the emotional elements within the text, indicating a lack of affective responses. This suggests a lack of top-down reading skills and higher order processing skills which suggests participants were not engaging in effective reading.

It is also interesting to note that participants in group 1 provided fifty percent fewer recall words in total in comparison to both groups 2 and 3. What this may suggest is that participants in group 1 had
lower comprehension and less information to recall overall, perhaps resulting from the fact that they were not able to scaffold one another in group discussions as participants in groups 2 and 3 were able to do.

Only two participants mentioned that the text may have been a poem, but the uncertainty in their statements coupled with the lack of further indication that participants recognised or acknowledged the text’s genre suggests that it is unlikely this knowledge had any affect on their recalls or comprehension of the text as a whole.

5.2.1.2 Group 2

Group 2’s written recalls of text 1 were more detailed and developed than those of group 1, and contained a greater number of elements involved in the construction of a situation model, suggesting both literal and interpretative comprehension, as well as some signs of critical comprehension too (Mohamad, 1999). Elements such as subject, character, and setting were mentioned in more detail than by group 1. More complex sentences and greater detail were used to describe the setting. The majority of participants not only identified the character, but also commented in detail on the protagonist’s predicament and climatic prayer at the end, as well as the situation faced by the character throughout the text, suggesting some F-emotions - characteristic of effective reading.

Interestingly, unlike in either groups 1 or 3, participants in group 2 provided complex sentences describing the protagonist's intention, and drew links between his actions and the overall problem. Zwaan et al.’s (1995) Event-Indexing Model proposes that “events and intentional actions of characters are the focal points of situation models” (p. 292). The fact that members of group 2 were able to not only identify the character’s intention, but also to make links with other textual elements indicates that causal links were also being made, a sign of effective reading.

Participants showed signs of higher order thinking skills, including the use of both top-down and bottom-up processing skills by constructing meaning beyond the mere surface level, commenting, for example, on what had lead the author to write this particular text. They related what they had read to concepts outside of the text and their own background knowledge, most commonly to Christianity. Although the text was not specifically concerned with Christianity, commenting on Christianity shows participants’ ability to make inferences beyond the surface and make
connections with pre-existing knowledge. It must be noted, however, that inferences concerning Christianity were not necessarily accurate. There were other examples of misunderstanding resulting from misinferences such as the three-legged dog.

Participants briefly discussed their thoughts on the poetic nature of the text. One participant referred to the concept of Christianity, speculating that this was a “poem about Christian?”. However, the fact that this in turn led to a further discussion about Christianity and not specifically on the poetic genre of the text suggests that participants did not pay a lot of attention to the genre of the text. It may also have been the case, however, that participants simply accepted the poetic genre and continued to read and comprehend the text in that way.

5.2.1.3 Group 3

Although group 3 exhibited similar results to those of group 2, there were times in which participants’ recalls of the text exceeded that of group 2 in terms of content depth and complexity, suggesting evidence of more critical reading comprehension (Mohamad, 1999). Aside from a lack of information regarding character intention, participants in group 3 included all of the same situation model elements as group 2, as well as a great deal more detail concerning causality and actions. Many of the recall comments provided by participants included more than one narrative element at once. This suggests that participants were engaging in effective reading by linking elements of the text to construct meaning and to form a mental representation of the text. Further signs that participants were connecting elements within the text were also evident. Causal connections were made between the elements of character and setting regarding the effect of the weather on the protagonist.

Participants in group 3 also referred to a number of elements regarding setting that neither groups 1 or 2 commented on, including insight into the depressive atmosphere that was depicted in the text by connecting information regarding the weather, atmosphere, and objects. They commented on how the story changes from a weather-based topic to a more deeper, depressive topic of emotions and feelings. This suggests that participants engaged in both top-down and bottom-up processing skills to develop an understanding beyond the mere surface level of the text. It also suggests activation of F-emotions. Further signs of F-emotions were seen when one participant used the word ‘I’ whilst referring to the main protagonist - placing himself in the character’s position. Kneepkens & Zwaan (1995) state that, when engaging with F-emotions, “readers are involved in the
story, imagine themselves in the place of the characters, and experience similar emotions” (p. 132).
Unlike the participants in either groups 1 or 2, participants in group 3 also showed signs of higher level thinking skills in questioning particular features of the text. This included character motives such as “But what is he running away from?”; another sign of their trying to engage with the characters actively and being aware of character perspectives.

Much like the participants in group 2, some of those in group 3 mentioned the misinferred topic of Christianity and religion. Participants in group 3 also referred to summer. This indicates that participants have at least a partial understanding of what the poem is actually about: July (the Northern Hemisphere’s summer month). What this suggests is that participants have connected information from the text with their own background knowledge of the outside world to conclude that the text concerned a summer day.

Interestingly, participants in group 3 also displayed meta-linguistic knowledge in the comprehension of text 1, making comments about grammatical structures such as the difficulty in distinguishing between conjunctions and verbs. They also engaged in frequent use of translation as a comprehension aid (Chamot et. al. 1988a; Chamot et. al. 1988b), discussing the meanings of English words in their native Japanese. This was not always a successful strategy. In one instance they selected the wrong native translation (perhaps resulting from the use of an electronic dictionary). However, for the majority of the time the discussion did act to facilitate communication including the “generation and conservation of meaning” in times when the textual information exceeded participants’ cognitive ability (Kern, 1994, p. 441).

As in group 2, participants in group 3 showed signs that they had recognised the poetic genre of the text, drawing on their background knowledge of poetry to reach a conclusion. Their statements were not conclusive, with participants using hedges over assertive comments. However, the way in which participants in group 3 read and recalled the text suggests they were reading the text as a poem, and may therefore have had an effect on the way in which they comprehended it as a whole. Literary reading researchers (e.g. Kintsch, 1980; Vipond & Hunt, 1989; Zwaan, 1993) claim that genres are partly defined by readers, and the way in which a text is read in fact helps to determine the genre to which it belongs. The same text may be read in different ways. For example, a text written as a literary text may be read as an information-based text, or vice versa, narratives may (or may not) also be read as literary artefacts. Different texts act “as a function of the expectations a
comprehender has for that type of genre” (Zwaan & Rapp, 2006, p. 727). The stance from which
readers approach a particular text is “responsible for differentiation amongst different types of
reading” (Sweetnam Evans, 2002, p. 67), and partly controls which elements of the text the reader
identifies as important for comprehension of the text and selects for attention and additional
processing.

5.2.1.4 Text 1 summary

All three groups covered the basic textual elements involved in the comprehension of text 1
such as character, setting, plot, and situations, but variations began to appear beyond that.
Participants in group 1’s reference to elements of a situation model was limited to the basic
elements at the top of the table (see Table 4.14), and although they did show signs of identifying a
problem and character actions, linking concepts through causality, and some bottom-up processing,
these were by no means prominent in their written recall and response comments, and a relatively
low level of comprehension was suggested overall.

Group 2 on the other hand expressed the same elements as group 1 plus more, including detail
regarding the climax and references to the events and, perhaps most significantly, character
intentions. They were also able to look beyond the mere surface level of the text and make
connections, relying on both top-down and bottom-up processing skills to do so. There were also
signs that they had an understanding of the poetic genre of the text, although the extent of this was
not clear based on their recalls and responses alone.

Finally, the findings show that group 3 covered all that group 2 did, but did not comment on
character intention. They did, however, refer to character actions in detail, drew detailed causal
links between textual concepts, and expressed an understanding of character F-emotions. This was
achieved through cognitive processing not reflected in groups 1 and 2, such as questioning elements
of the text, analysing grammatical structures, and translating. Participants also went beyond the
surface level of the text and connected textual information to the outside world through means of
both top-down and bottom-up processing. In doing so, they came the closest to identifying the true
topic of the poem by referring to the notion of summer. There were also signs that they had an
understanding of poetic genre, illustrated by the way in which they read and approached the text as
a whole.
5.2.2 Text 2 (*Red Riding Hood, 606*)

5.2.2.1 Group 1

Overall, much like their recalls of text 1, group 1’s recall of text 2 was lacking in the details of a developed situation model, suggesting a relatively low level of comprehension overall (Mohamad, 1999). Although the group provided a combined total of 209 words for their written recalls, sixty-five more than group 2, this is mainly attributed to P4, whose comprehensive recall alone consisted of 147 words. The remaining four participants in the group recalled an average of just sixteen words each, suggesting a relatively low level of comprehension and recall on the whole. Overall, recall comments contained brief mentions of character, often centred on the Grandma rather than on the main protagonist, Little Red Riding Hood, perhaps indicating a lack of F-emotions, and included many topic-comment utterances (den Dikken, 2005) in which participants merely commented on topics generally. Comments regarding setting were very basic and limited, predominantly mentioning the forest; a setting for only a small section of the text. Only one participant referred to the climax of the text in which Grandma appears from within the wolf to kill the woodcutter - a significant deviation from the original storyline. Although mention was made in brief to the situation and events, there was a lack of causal connections between textual elements and their links to the underlying topics of sexism and feminism. This suggests that the readers failed to develop a detailed situation model of the narrative overall, instead focusing their recalls on the surface level details and basic words and ideas from the text, indicative of low comprehension.

Aside from P4 (who alone referred to a *hidden feminist* issue) participants provided no comments regarding the underlying feminist attitudes of both Little Red Riding Hood and Grandma. No comments were made on elements in the text regarding the characters’ making of sexist remarks against women, perhaps indicating the readers’ lack of F-emotions and comprehension of perspectives. A number of response comments on how the ‘story changes half way through’ suggest that readers were occasionally using their background knowledge to make connections between the text and the original story; displaying signs of intertextual knowledge.

A number of participants in group 1 identified text 2 as narrative in genre, referring to the text as a ‘story’. In accordance with the Material Appropriate Processing Framework, which states that readers comprehend texts differently according to their knowledge of, and expectations for, specific text genres (Geiger & Millis, 2004; Zwaan, 1994), it is likely that participants looked for specific narrative elements to use in their comprehension of the text overall. This can be seen in their written
recalls outlining characters, setting, plot, and chronological sequencing of events. The extent to which this enhanced their comprehension, however, appears to be relatively insignificant given their brief and shallow recalls lacking detail of many elements of a developed situation model.

5.2.2.2 Group 2

Participants in group 2 covered basic elements of a narrative text such as character and subject matter in more detail than participants in group 1 did. Two out of the five participants in group 2 recalled the climax of the story, with comments providing much greater detail and sophistication in their recall of the climax, suggesting greater comprehension. Eighty percent of the participants recalled the narrative conclusion, suggesting an awareness of both F-emotions and P-responses indicating reader preferences for a positive ending for the characters and an understanding of the text beyond the mere surface level (Gerrig, 2013). Surprisingly, participants in group 2 provided very few comments regarding the setting of the text. There was a similar lack of comments on significant events in the narrative, such as Grandma being eaten by the wolf, which perhaps suggests a limited level of textual engagement on the whole.

It should be borne in mind that although participants did not refer to these elements in their written recalls, this does not necessarily mean that they did not remember or understand them (Roebuck, 1998). On the other hand, it must also be mentioned that participants’ recalls showed a lack of understanding concerning causality and sequences of events (for example, what lead to the woodcutter’s death in relation to the underlying theme of feminism), and as such, in terms of some literary reading research, it could be said that the readers have misinterpreted the point of the text (Hunt & Vipond, 1986).

Participants in group 2 did demonstrate a number of effective reading skills. They often drew upon both background and intertextual knowledge to make connections between the text and the original storyline, including details of the modification of the storyline and exact differences between the two versions. It is possible that the more obvious differences were easier to recall than other textual elements.

Participants also related textual elements to their knowledge of the outside world and issues associated with modern society. In doing so, they were able to develop opinions and make inferences and produce affective comments using top-down reading skills. The discussion also
illustrated further instances of readers’ bottom-up processing skills, including the discussion of word meanings. Unlike the participants in group 1, participants in group 2 considered the underlying topics and issues of feminism in the narrative and provided more insight into the characters vis-a-vis these thematic issues, suggesting a greater understanding of the text, as well as an engagement with F-emotions and an appreciation of the perspectives of characters.

As did participants in group 1, participants in group 2 also identified the text as narrative in genre by referring to it as a ‘story’, which helped to direct their attention to particular aspects of the text as they attempted its comprehension and constructed their meanings. This is evidenced in statements clearly mentioning (albeit it in brief) character, plot, setting, resolution, and the making of causal links and chronological presentation of events.

5.2.2.3 Group 3

Participants in group 3 used a total of 325 recall words for text 2 (an average of 65 words per person), twenty-nine percent more than in group 1 and forty-four percent more than in group 2, indicating greater recall than the participants in the other two groups, and thus perhaps the greatest understanding. This assumption is backed up by the content of their recalls, which, as in groups 1 and 2, covered basic elements of subject and character, but also dealt with elements which the other groups did not deal with. These included fuller accounts of the events within the narrative comprising details of the characters, their actions and motives; causal connections between the characters, actions, and events within the text; outlines of the situations; and recounts of the conclusion of the text. Again, little attention was focused on setting (other than the outlining of various locations). Only one out of the five participants recalled the altered climactic event in which Grandma kills the woodcutter. Nonetheless, the detail provided in these accounts was still greater than that provided by groups 1 and 2, re-enforcing the assumption that group 3 had a greater comprehension of the text as a whole.

Overall, participants in group 3 exhibited more both bottom-up processing and top-down processing. They commented on the environment created within the narrative which also suggests an engagement with A-emotions and the style in which the text was written. The use of top-down processing skills was evident, reflected in the comparison of the text to the original story. The majority of the participants provided comments suggesting they were drawing on background knowledge, including intertextual knowledge and socio-cultural knowledge, as they mentioned the
themes of sexism and feminism. By mentioning that such themes did not occur in the original text, participants showed their ability to consider the text in a wider context, making connections and inferences based on background knowledge to compare and contrast the two versions of the story. They began reading under the impression they were familiar with the story, and thus read in a manner directed towards an ending they thought they knew. Evidently this did not come about, however, and participants then changed their opinions in response to newly-inferred textual information suggesting the appreciation of comprehension monitoring strategies. They also showed signs of engaging both A-emotions by appreciating the stylistic manner in which the text was written, which none of the participants in the other groups did. They gave evidence of situation model construction in identifying character perspectives.

Participants in group 3 also displayed a critical comprehension of the text greater than that of the participants in either groups 1 or 2 by providing their own opinions on both the style in which it was written, as well as on the content and textual information. As in the other two groups, there were a number of minor misconceptions, but these may have been reduced or eliminated had participants been given the chance to revise these inferences by re-reading the text following the discussion (Gernsbacher & Faust, 1991; Sweetnam Evans, 2011).

As in both groups 1 and 2, participants in group 3 also displayed an understanding of the narrative genre of the text, which appears to have had an effect on their comprehension, evident particularly in their comments on specific narrative elements such as character, plot, setting, problems, resolution, events and situations, and character intentions and motives.

5.2.2.4 Text 2 summary

As with text 1, participants in all three groups covered the very basic elements of a situation model for text 2 in their recalls (e.g. character), although comments identifying elements such as the situations and settings were rare. All three groups identified the genre of the text as narrative, which undoubtedly focused their attention on specific narrative elements during the comprehension process.

Group 1 provided brief mentions in their recall comments of the resolution, events, and character actions, although a lack of causal connections made between the elements suggests that participants’ comprehension was relatively low and disjointed overall. They did, however, hint at the ability to
make broader connections when using background and intertextual knowledge to make connections between the text and the original story, although this was not a frequently utilised skill.

Group 2 displayed an understanding of the same textual elements as group 1, but recalled greater detail concerning resolution. Unlike group 1, however, they made mention of the climax, and also included brief mentions of causal links, character intention, and the underlying topics, although comments containing these were lacking in detail, perhaps suggesting only a partial understanding of the text overall. Group 2 also constructed meaning beyond the surface level, using both bottom-up and top-down processing to make inferences with some signs of P-responses, A-emotions, F-emotions, and autobiographical responses.

Group 3 exhibited the greatest comprehension of the text overall. Participants in group 3 provided all that those in group 2 did, but also recalled elements of the text in much greater detail, particularly in terms of causality, suggesting an understanding of the textual structure and the way in which certain elements relate to one another. As in group 2, participants also provided evidence of F-emotions, plus far more evidence of P-responses and A-emotions, suggesting their ability to relate to the text and to the characters. They also showed a number of signs of bottom-up and top-down processing, including the ability to discern underlying themes and differences between the text and the original storyline.

5.2.3 Text 3 (*Dirty Coffee*, 53)

5.2.3.1 Group 1

Although text 3 consisted of only fifty-three words in total, participants in group 1 were able to mention briefly aspects of the text such as the main characters, the cafe/coffee shop setting and the subject matter, including brief mentions of the overall events and actions of the characters (e.g. the customer calling the waiter and the ensuing conversation). However, despite the fact that all five participants recalled the dirt in the customer’s coffee (the situation), as well as the fact that something had happened to the coffee ‘thirty minutes beforehand’, they failed to make connections between these elements, suggesting that possibly they did not make the necessary causal links, and did not relate the events to one another. There was also no connection drawn between the basic situation model elements and arguably the most important element of the text: the climactic punchline of the joke.
Overall, participants appeared to find the play-on-words punchline difficult to understand, often confusing the intended meaning (past participle of *grind*) with the second meaning of the word related to *dirt*. The latter meaning of the ‘earth’s surface’ appeared prominently in their written recalls, indicating that the readers created a situation model based on only one of the meanings of the word *ground* and further suggesting a lack of comprehension. It may also suggest a simple lack of lexical comprehension. A number of participants identified the fact that the word *ground* was an important element in the successful comprehension of the text overall, but were unable to work out exactly why - again suggesting a low level of comprehension. Interestingly, two participants did comment on the fact that the coffee was “ground”, recalling the exact same wording as the original text, possibly suggesting an understanding of the past participle of *grind*. However, because there is no further evidence to support this, it may simply be the case that they were recalling the surface text wording without understanding the semantic denotations of the words, which does not necessarily denote comprehension.

Participants in group 1 showed little understanding that the genre of text 3 was a joke. One participant came close, commenting that it “*sounds like a kind of joke*”. However, because the comment was said with no great certainty, and no further evidence was provided to suggest that any genre-related knowledge had played a role in her overall comprehension of the text, it is unlikely that she constructed a joke reception framework during the comprehension process, and therefore she probably did not understand the text and the word play on which comprehension is based.

**5.2.3.2 Group 2**

Participants in group 2 showed a much greater understanding of the text than those from group 1. Unlike in group 1, the majority of participants in group 2 provided a brief summary of the text as a whole, including the characters, setting, situation, events, and actions, suggesting a general understanding of the causal connections between the fundamental features of the text. Also unlike in group 1, all five participants in group 2 referred to the word *ground*, and although there was again evidence to support miscomprehension in some cases, there were also more promising signs of comprehension involving higher level thinking skills. For example, participants looked beyond the mere face value of the word *ground* at other possible meanings, and questioned these meanings in context. They also discussed their own interpretations of the word, scaffolding one another to arrive together at a plausible conclusion. This shows their ability to interact with both the text and each
other to construct meaning beyond the mere surface level; skills that were not seen within group 1, not least because there was no opportunity for interpersonal communication.

Although participants were unsure about which meaning of the word they should use, there was evidence that they had some understanding of the fact that the word *ground* may be referring to both *dirt* and the *grinding* of coffee, with one participant even commenting on how it may be a joke utilising both meanings of the word. Another participant illustrated a metacognitive knowledge of effective receptive skills, commenting on how he thought the meaning would change depending on the circumstance.

Participants also expressed their opinions that the text was relatively easy to understand, including response comments on the way in which it made them think despite its relative simplicity; a sign of A-emotions and also an indication that bottom-up textual processing had taken place. They also shared their personal thoughts regarding the text, showing their ability to relate what they had read to their own personal experiences and background knowledge; in other words, to engage top-down processing. There were also instances of code switching during the discussion, perhaps as an aid for comprehension (Sweetnam Evans, 2011); a type of self-scaffolding. In one particular case, one participant could not recall the English word for *part-time job* and switched to Japanese during the group discussion, perhaps as a compensation for lack of proficiency, or resulting from a temporary mind-blank in which the word was not accessible in the base language at the time (Milroy & Muysken, 1995).

One out of the five participants in group 2 provided a response comment regarding the joke genre of the text, stating: *It was a joke using the words ‘dirt’ and ‘ground’*. Unlike previous comments made by participants of any group regarding the genre of the text, this comment appears to be said with an element of certainty. The participant expresses knowledge of the text’s genre, although there is no further evidence in his comments to suggest that he utilised this knowledge when comprehending the text throughout both the reading and discussion processes. However, he does realise that the punchline of the joke is one that has a play on word meanings; a significant aspect of the reception of certain types of jokes (Jodlowiec, 1991).
5.2.3.3 Group 3

Group 3 provided only four percent more recall words than group 2, suggesting a relative similarity between the two groups, as was also expressed in their similar inclusion of elements of a narrative text (see Table 4.20). However, as with texts 1 and 2, participants in group 3 provided much greater detail, including greater recalls of the subject matter, characters, setting, problem, and the situations and events in the text, causally linking the features to form a coherent whole. Participants particularly provided greater detail of characters’ actions, noting that the customer complained about the dirt - a factor not mentioned by participants in either groups 1 or 2. This perhaps suggests an engagement of F-emotions relating to the character’s feelings and attitudes towards the situations portrayed in the text, or at least a situation model appreciation of character perspectives. Another higher level processing skill employed by participants in group 3 and not by those in groups 1 and 2 was questioning various elements of the text, a sign of effective reading (Palincsar & Brown, 1984; Sweetnam Evans, 2011) and critical reading comprehension (Mohamad, 1999). This included questioning of the function the text served and the types of information it portrayed, suggesting that participants did have, to some extent, an understanding of the fact that the text was a joke. They also questioned whether or not there was in fact one correct interpretation - an interesting notion given the double-meaning of the pun in the final line of the text. Related to this, participants in group 3 questioned the meaning of the word *ground* in the punchline, perhaps in an attempt to better understand it.

Interestingly, not one participant in the group appeared to have misinterpreted the use of the word *ground* in their recalls and responses, suggesting a developed comprehension on the whole. However, there was little evidence that they had fully understood the pun however, with many participants simply recalling the same or similar wording as was used in the text. Two participants did, however, show an understanding of the word by replacing the original wording with their own, which suggests some understanding of the term, although no mention was made of the pun in the punchline.

Participants in group 3 continued to show evidence of using top-down processing skills, showing their ability to monitor their own reading comprehension to determine the best-suited comprehension approach, which also illustrates their awareness that texts can be written and read for different purposes and different genres (Sweetnam Evans, 2011). Participants also commented on how the intention of the waiter's remark would change depending on their interpretation of the
text, evidence of an effective situation model construction in understanding the character’s intentions, as well as the ability to use top-down processing skills to infer coherent, global meaning, not only the meaning of the individual words of text. They also displayed such metacognitive skills in discussing how interpretation of the text is in fact subjective and the product of an individual’s own opinion of the text, and mentioning that different analyses may surface amongst the group as a result. This is partially a result of the fact that readers develop a coherent interpretation of a text through the interactive process of "combining textual information with the information a reader brings to a text" (Grabe, 1988, p. 56), and variations in individual readers’ background knowledge and what they consequently infer from the text will result in different final interpretations of the text as a whole.

The concept of questioning the interpretation of the text continued throughout group 3’s discussion as participants drew on their own background knowledge and personal ESL experiences to gauge the way in which the text was intended to be understood. Their discussion was also the first to provide an insight into the effects group discussions have on participants’ overall comprehension of the text. Participants did not initially share a mutual understanding of the term ground, but rather, only through discussion with one another did all participants reach the eventual outcome in which they understood the term - a situation not apparent in group 2’s discussion of the same text. Sweetnam Evans (2013) refers to this phenomenon, stating that through group discussions, participants … can work together, scaffolding one another as they construct meaning socially by activating and pooling their background knowledge, comparing their inferences and constructing coherent mental texts based on their joint input (p. 49).

This also supports Kirby's (2008) concept of positive interdependence, in which it is the responsibility of the entire group to ensure that everyone understands the context of the discussion, achieved through discussion of the content itself, and it is the individual’s responsibility to solidify his/her own understanding and comprehension of the text (individual accountability).

There was some indication that participants in group 3 had an understanding of text 3’s joke genre. One participant asked the question “Is it the literal meaning, or is it a joke?”, and although the comment is by no means said with certainty, it does suggest that he has a basic understanding of the text’s genre, perhaps from building on background knowledge and textual features of jokes.
5.2.3.4 Text 3 summary

As with the recalls of both texts 1 and 2, participants from all three groups covered basic elements of a situation model including character, setting, and situation, although inconsistencies between the groups began to appear thereafter. Group 1 provided brief mentions of the events/situations and character actions. Although similar to what they had done for text 2, a lack of causal connections between such elements left their recalls somewhat disjointed, suggesting a relatively low comprehension of the text overall. Unlike in texts 1 and 2, they were unable to make broader connections using background knowledge, or relate the textual information to their own personal experiences, indicating that they were perhaps viewing the text simply on the surface level, and did not develop a deeper understanding as a result.

Group 2, on the other hand, included more elements of a situation model in their recalls than did group 1, including detail into causal connections between the events and situations. Unlike group 1, participants in group 2 also showed an activation of F-emotions and briefly of A-emotions, suggesting greater textual engagement. They also employed a combination of bottom-up and top-down processing skills to construct meaning beyond the surface level of the text, make autobiographical connections, and to question a few textual elements. Participants also showed signs they had an understanding of the climactic punchline, including a potential understanding of the joke genre, although this was not entirely clear based on their recalls and responses.

Group 3 exhibited similar results to group 2, including even more elements of situation model construction in their written recalls. Participants in group 3 appear to have the greatest understanding of the text as a whole, expressed in their detailed comments regarding basic textual features, as well as providing details not given by participants in groups 1 and 2 concerning character actions and authorial intention. Participants also causally linked features of the text to one another, relating what they had read to their own personal experiences and background knowledge as they engaged in both bottom-up and top-down reading skills to process the text. They also questioned aspects of the text more often than participants in group 2 did, and illustrated a greater ability to view the text not only on the surface level, but also as related to the outside world, suggesting critical reading comprehension had taken place.
5.2.4 Text 4 (Bug Bites, 910)

5.2.4.1 Group 1

Much like for texts 1, 2, and 3, group 1’s recall and response comments for text 4 suggest a relatively low comprehension. Their written recalls of the text were simple in detail, focusing on the major topics addressed in the article with very little detail into the less prominent issues raised in the text. Although the majority of the participants provided summaries of the dominant macro-propositions in the text, it is important to note that simply identifying these without any micro-propositions suggests a relatively low level of competence in reading, and is not necessarily a sign of readers’ comprehension proficiency on the whole (Leslie & Caldwell, 2011). However, participants did illustrate top-down processing skills with the majority voicing their own opinions on the content of the article based on the relationship between what they had read and their own background knowledge of relevant societal and cultural norms. There were also some signs of bottom-up processing in comments such as “in this text it said”.

Interestingly, despite the nature of expository texts in providing factual information, participants in group 1 did not question the reliability of the information. They did provide comments expressing surprise or disgust at the major ideas presented. This may have been because participants did not appreciate the expository nature of the text. Although one participant mentioned that the text was an article, there was no further evidence to suggest that this affected the way in which the reader comprehended the text, and no other participants mentioned this understanding either. However, this does not necessarily indicate that the participants were not aware that they were reading an information-based text.

5.2.4.2 Group 2

Participants in group 2 indicated a much greater comprehension of text 4 than those in group 1. Participants in group 2 also started off with simple summaries of the text, recalling the macro-propositions in the article. What separates the two groups is the level of detail that participants in group 2 provided, suggesting interpretative comprehension and inferencing had taken place. For example, all five participants considered why insects are eaten throughout the world, including their nutritious value - mentioned only briefly in the article itself. They extended this understanding in response comments on future consequences of eating insects, extrapolating the basic themes of the text to a broader context. This suggests a greater comprehension of the text as they showed their ability to engage with issues beyond the surface level of the text, using top-down reading skills to
comment in detail about the micro-propositions in relation to their own background knowledge. They also showed brief signs of bottom-up processing skills and interacting with the text in comments such as “[w]hat they’re saying here”...

Participants in group 2 exhibited signs of ranking various elements of the texts in order of appearance, perhaps suggesting an order of importance as is conventional in expository texts (Leslie & Caldwell, 2011). They made limited but evident links between these elements by drawing upon background knowledge to make autobiographical connections and to form conclusions and create meaning. Participants also used techniques of scaffolding one another to understand areas of difficulty during the group discussion (Sweetnam Evans, 2013), as well as translation to facilitate meaning (Kern, 1994), thus advancing the comprehension of the group as a whole. Unlike those in group 1, participants in group 2 exhibited greater signs of having understood the expository genre of text 4 by more frequently mentioning the fact that it was an article. That they continued to discuss and recall the text in terms of the information they had taken from it, suggests that they had engaged in information-driven reading as influenced by their knowledge of the text’s expository nature (Zwaan & Rapp, 2006).

5.2.4.3 Group 3

Group 3 exhibited the greatest comprehension of text 4 of all three groups. They provided detailed recalls of basic features such as the underlying subject matter and macro-propositions. What sets them apart from groups 1 and 2 was the level of detail produced for the micro-propositions and the construction of a coherent textbase as a result. Participants used top-down processing skills to link elements of the text causally, mapping incoming textual information onto their existing knowledge structures (Gernsbacher & Foertsch, 1999) and logically making autobiographical connections among the elements in the text and what they knew of social and cultural norms. They also expressed personal opinions about textual elements and propositions, going beyond the text to relate elements not only to their own experiences, but also to other texts they had read before - a sign that effective comprehension had taken place (Mohamad, 1999). As did to participants in groups 1 and 2, participants in group 3 also used bottom-up processing skills as is evident in comments beginning with ‘it says that…’

Much like in groups 1 and 2, participants in group 3 identified text 4 as an article, but unlike the participants in the other two groups, they also questioned the information in the text and commented
on the reliability and authenticity of the information presented (e.g. whether or not bees are actually sold as food in Japan, and whether or not other insects are eaten in Japan). This shows a level of higher-order thinking and top-down processing skills consistent with effective reading of expository texts. The reasons behind this action perhaps lie in the readers’ monitoring of the text based on certain reading and discourse conventions which are generally thought to govern the reception and comprehension of expository texts. Knowledge of these conventions, in combination with textual information and the readers’ own background knowledge, are used to construct coherence and meaning for texts. As Searle (1975, p. 331) points out, “what counts as coherence will be in part a function of the contract between author and reader” based on presumptions and conventions specific to that text.

Having identified text 4 as expository in genre, participants in group 3 appear to have conformed to the ‘validation model’ and questioned the reliability of the information presented in the text, relating their interpretations to their own knowledge of society to authenticate the textual information (Singer & O’Connell, 2003; McNamara & Kintsch, 1996). Graesser, Singer & Trabasso (1994) state that when reading expository texts, “readers construct and validate causal bridging inferences” (p. 200). This is referred to as the validation model of inference processing (see Singer, Halldorson, Lear, & Andrusiak, 1992; Revlin & Hegarty, 1999), which claims that readers evaluate expository inferences against relevant background knowledge before they can be accepted. To do this, readers first derive a ‘mediating idea’ from the text’s information and compare it to their own relevant background knowledge. If the mediating idea is “consistent with that knowledge, the inference has been validated” (Graesser et al., 1994, p. 200).

On the other hand, in understanding that texts 1, 2, and 3 were not expository in genre, and would therefore not pertain to the same conventions as text 4 and contain disputable facts of the real world, participants did not seek to confirm textual information from texts 1, 2, and 3 as true, but merely plausible. Schmidt & Groeben (1989) mention the fact convention for non-literary texts and general communication, which they state is the knowledge that

... communicative objects, especially texts, should permit reference to the world model accepted in that society, such that people can decide if the assertions conveyed by the text are true and what their practical relevance is (p. 18).

When reading a fictional narrative, readers set aside the fact conventions and do not assume that settings, actions, events, situations and characters actually exist in the real world, nor do they
assume that the author is writing content that holds truth in relation to facts of the real world (Ohmann, 1981; Searle, 1975; Vipond and Hunt, 1984). Searle (1975) states that

[t]he difference, say, between naturalistic novels, fairy stories, works of science fiction, and surrealistic stories is in part defined by the extent of the author's commitment to represent actual facts (p. 331).

The desire to authenticate textual information as fact in relation to what the reader knows of society and the real world is thus unique to conventions involved with reading information-based texts. This is one difference that distinguishes the reading of fact from the reading of fiction and other literary texts, and the ability of participants in group 3 to do so suggests a high level of effective reading skills and critical reading comprehension.

5.2.4.4 Text 4 summary

The groups comprehension level of text 4 for all 3 groups is consistent with that of the previous 3 texts. All three groups were able to produce a summary of the text and the dominant macro-propositions, but there were variations in the rest of their written recalls and responses. Group 1 displayed the ability to engage with top-down processing skills in making connections in and beyond the text, and also indicated an ability to engage in bottom-up processing. There was no indication that participants had an understanding of the micro-propositions or underlying issues in the text, nor an understanding of the overall text structure including the ranking and linking of ideas, suggesting a mere literal comprehension. Only one participant was able to identify the expository genre, which suggests a relatively low level of comprehension.

Group 2 gave evidence of extended comprehension by providing the less prominent micro-propositions within the text. They also engaged in top-down and some bottom-up processing, and provided more detailed connections beyond the surface level. Unlike in group 1, participants in group 2 exhibited some ability to rank and link textual elements, as well as to question the text, although this was not so common. They also indicated an understanding of the expository genre, suggesting a higher level of interpretative textual comprehension.

Group 3 exhibited the greatest understanding of the text overall, covering all that those in groups 1 and 2 did in much greater detail, particularly in the causal ranking and linking of textual information and elements. They also displayed a higher level of critical comprehension in the extent to which they were able to question the text and the reliability of the textual information presented
within. They exhibited a solid understanding of the text’s expository genre, which appears to have had an affect on the way in which they read and comprehended the article as a whole.

5.3 Perspectives on L1 and L2 use

Although one third of the participants stated that they believed the use of the L1 to be negative in the L2 learning environment, participants were, in general, open to its use in some circumstances. This negative view may be related to their ESL learning background in Japan, having learnt English as an L2 in accordance with the Japanese Government’s Ministry of Education, Culture, Sports, Science and Technology’s MEXT (2002) Action Plan to Cultivate ‘Japanese with English Abilities’, which asserts that “teachers should conduct classes ‘principally’ in English” (Ochi, 2009, p. 123) to improve students’ English abilities.

Despite this fact, however, participants mentioned the following seven situations (in no particular order) in which they believed the use of the L1 to be beneficial for L2 learning:

1.) As a comprehension aid to understand the L2 (see also Cook, 1992, 2001).
2.) To appreciate subtleties of the L2 (see also Hashim & Seng, 2006).
3.) When starting out learning the L2 (see also Hawras, 1996).
4.) To ease learners’ stress levels and provide ease (see also Phakiti, 2006).
5.) For self-reassurance/confidence (see also Phakiti, 2006).
6.) When looking up unknown words (see also Paribakht, 2005).
7.) When thinking of new ideas (see also Macaro, 2005).

There was no evident variation in these findings between participants of each group, suggesting that the present study had little to no effect on their personal responses.

Similarly, participants mentioned the following domains in which they believed the L1 was not beneficial in L2 learning:

1.) Speaking, listening, and writing.

Although thirteen out of the fifteen participants admitted to using their L1 in L2 communication and learning at least some of the time, forty-six percent of participants preferred to be taught in the L2, with thirty-three percent stating they liked to have both in the L2 classroom, and only twenty percent favouring just the use of the L1 only. It is likely that this is also the result of the environment in which participants have learnt English as a foreign language (EFL) in their home
country, Japan. Interestingly enough, eighty-seven percent of the participants claimed they preferred to discuss an L2 text in the L1. This perhaps rises from the fact that through L1 discussions it is easier to maintain dialogue and continue the flow of conversation (Villamil and De Guerrero, 1996), and this allows learners to work within the zone of proximal development (ZPD) as they provide scaffolded help to one another (Antón & Dicamilla, 1999; Rommetveit, 1985; Wood et al., 1976) and access their L1 reading skills through transfer (Sweetnam Evans, 2013).

Participants gave reading an average rating of 4/5 in terms of the importance of using the L1, the highest out of all four of the language domains. Writing received 3/5, with both listening and speaking receiving only 2/5. One reason participants provided to explain why they had given the high rating for reading is that use of the L1 allows them to translate and compare L2 texts in their L1.

Overall, one-hundred percent of the participants found text 1 (poem) to be the hardest, with over half stating text 4 (expository text) was the easiest. Their comments suggest that a combination of both unfamiliar vocabulary and linguistic constructions (including complex grammar constructions), coupled with a context including a number of abstract nouns resulted in the participants’ difficulty to comprehend it overall, and is perhaps the reason why P14 states that L1 discussions are not suited to this type text (narrative).

Participants’ comments on the simplicity of text 4 suggest that texts which are interesting and enjoyable for participants to read are the easiest to understand. Research on literary reading (see Hunt, 1996) suggests that some texts are dialogic in nature. In other words, “[r]eaders feel a need to discuss certain types of texts once they have read them” (Sweetnam Evans, 2002, p. 69). The reason for this appears to be due to readers’ interest in the texts. This is also the case for those texts involving information-driven reading (Evans, 1995) which spark the reader’s interest through affectively-arousing events and information (Morgan and Seilner 1980). Sweetnam Evans (2002) states that textual interest is the “balance between the information in the text and the reader’s background knowledge and experience” (p. 69). Kintsch (1998) sums this up by stating that interest is what is “neither too familiar nor too strange” (p. 419). In stating that L1 group discussions are better suited towards these kinds of “news articles (or objective story)”, P14 is perhaps suggesting that, because the topics are more novel, interesting and easy to relate to, there is no difficulty in discussing the topics expressed in the text, and they are thus enjoyable and beneficial to discuss as a group.
CHAPTER SIX
CONCLUSION

6.0 Introduction

This study set out to discover the effects a learner’s L1 has on L2 reading comprehension, in particular the effects of L1 vs L2 group discussions on the reading comprehension of differing genres. It also sought to investigate L2 learners’ personal perspectives on the use of the L1 in their own L2 learning process. A number of methods were used to collect the data, including written recalls, recordings of verbal group discussions, and written questionnaires.

The findings showed that group discussions had a significant effect on learners’ L2 reading comprehension, with discussion in the L1 being the most effective. Participants held mixed opinions on the use of the L1 to aid their L2 learning. They were, in general, open to its use both inside and outside the classroom environment. Hence, it was suggested that both L2 teachers and learners alike need to consider the L1 as a learning tool that can aid L2 acquisition and development, and find ways in which they can assimilate it in to the learning process.

I begin this chapter by first reconsidering the research questions, and then discuss implications for the L2 teacher and learner. Finally I acknowledge the limitations of the study, and provide suggestions for further research.

6.1 Research questions

6.1.1 Question one: What are the effects of L1 group discussions in facilitating L2 reading comprehension?

It is clear from the findings that group discussions in general have a significant effect on L2 learners’ reading comprehension, as seen from the evident differences between group 1, and groups 2 and 3, in their comprehension of all four texts. Groups 2 and 3 provided much more detail and insights into each text (including various elements of narrative and expository texts) suggesting that collaborative group discussions play a significant role in reading comprehension.

The recalls and responses provided by group 3 suggest a greater comprehension of all four texts, as evidenced by the type of information that participants recalled for each text and the level of detail in
which they responded. From these findings, it is possible to conclude that L1 group discussions are of greater benefit to participants’ reading comprehension of L2 texts.

Groups 2 and 3 provided a much higher average word count for their written recalls and response comments (see Table 4.9) than did group 1, suggesting the benefits of group discussions in participants scaffolding one another and building the comprehension of the group as a whole. The ability to have stress-free discussions in their L1 without the restrictions of unknown L2 words or structures is perhaps what caused group 3 to have the highest average number of recall, response, and discussion words per text, which, coupled with their more detailed and intricate recalls and responses to each of the four texts, further suggests the benefits of L1 discussion groups on L2 reading comprehension.

The use of the L1 in group discussions appears also to have had an effect on the type of content that participants discussed and recalled. Participants in group 3 discussed and wrote about more complex and intricate topics not mentioned by the other two groups. This may have been because the learners felt more confident being able to have discussions in their L1, and were able to discuss more detailed topics without language proficiency constraints. In discussing such topics in greater detail, participants worked with one another to scaffold and build the textual comprehension of the group in ways unmatched by groups 1 and 2.

6.1.2 Question two: What effects do L1 discussions have on the comprehension of various L2 text genres?

There is evidence to suggest that L1 discussions played an influential role on L2 genre comprehension. Participants in group 3 showed more awareness of textual genre across all four texts, with forty percent more participants than in group 1 and thirty percent more participants than in group 2 referring to the genre of each text (see Table 4.11), numerically advocating for the benefits of L1 discussions for text genre comprehension. However, there was variation within each group depending on the text. Texts 1 and 2, a poem and narrative respectively, were the two most widely recognised genres with forty-seven and fifty-three percent of all participants respectively referring to them in their written recalls, with text 3, a joke, the least recognised with just twenty percent of participants mentioning the genre.
Participants in group 3 were able to determine the genre of each text by drawing on background knowledge of specific textual features and conventions which was not done by participants in either groups 1 or 2.

What really suggests the benefits of L1 group discussions on L2 genre comprehension is not only the mentioning of the genre itself, but also the fact that participants used this awareness to develop comprehension of the text as a whole. This was seen particularly in text 2 (narrative), in which participants of all three groups specifically recalled elements of narrative texts, including character, setting, climax, etc. For example, having identified text 1 as a poem, participants in group 3 went on to state that, although the imagery was difficult to picture, the fact that it was a poem meant it was free to for the reader to interpret as they saw fit, and this affected the way in which they comprehended the whole text. The same was seen with text 4 when, having identified it as an expository article, participants in group 3 set about questioning and attempting to authenticate the reliability of the information presented in the text. These comprehension skills and strategies were not used by participants in groups 1 or 2, suggesting that L1 group discussions played a significant role in L2 text genre comprehension.

6.1.3 Question three: What are the perspectives of L2 learners on the use of the L1 in their own L2 learning process?

Overall, participants in all three groups were open to the idea of L1 use in the L2 learning process in some form or another. There were, however, differences of opinions regarding when, how, and how often the L1 should be employed.

All fifteen participants stated that they saw at least some benefit in utilising the L1 throughout the L2 learning process whether they did so themselves or not, some even providing rationales as to why they thought it was beneficial to learning the L2. The eight situations that participants perceived to be beneficial from using the L1 ranged from as a comprehension aid (e.g. understanding finer nuances) to providing ease (e.g. stress relief and self assurance), suggesting that participants were in fact aware of the ways in which the L1 may work to support L2 development and were open to its use. The fact that even those participants who were against the use of the L1 personally still saw the benefits of its use, is further evidence to support the advantages of using learners’ L1 in the L2 classroom.
Although the majority of participants (forty-seven percent) said that they preferred to be taught in
the L1, one third of participants were in favour of an Alternating Language Approach (Cook, 2001)
utilising both the L1 and the L2. Eighty-seven percent of participants stated that they preferred to
discuss L1 texts in the L2 to enhance comprehension of the text. All participants also saw benefit in
using the L1 to aid L2 reading comprehension, more than in any other language domain.

It is possible that the present study may have influenced these opinions, but it is also true that there
was little to no variation in the opinions participants held on the L1/L2 relationship between groups,
suggesting that their roles within the present study had little effect on their individual perspectives.
Participants also appreciate the benefit of the L1 on L2 writing, particularly in the planning of ideas
and looking up of unknown words. However, the use of the L1 in the domains of both listening and
speaking was generally not mentioned as beneficial.

6.2 Implications

It is clear from the findings in the present study that L1 collaborative groups have a positive
influential effect on learners’ reading comprehension of L2 texts. With this in mind, there are a
number of implications for both the L2 teacher and the L2 student.

6.2.1 Implications for L2 teachers

The findings of the present study suggest that L2 teachers should aim to incorporate group
discussions, particularly those involving reading comprehension, into their classroom activities.
This is particularly the case for L1 group discussions, which show a higher correlation to L2
reading comprehension than those in the L2. Similarly, L2 teachers who have previously been
against L1 use in the L2 classroom should begin to consider and explore new ways in which the L1
could be integrated and used both to facilitate and aid L2 learning in something of an alternating
language approach to teaching. A learner’s L1 is a tool at both the teacher’s and learner's disposal.
Teaching methods should regard the L1 as a tool for L2 learning, in particular, the scaffolding role
that it provides for learners so that they may help one another through interactive collaboration.
Whether the teacher is able to speak the learners’ L1 or not, teachers should give students the
chance to communicate with one another in their L1 to encourage scaffolding. The confidence that
having the freedom to use their L1 gives to learners is also important in the L2 learning process, and
that confidence may encourage learners to move out of their comfort zones and discuss or write

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about topics otherwise avoided, as was shown in the present study with participants in group 3 discussing a vast range of topics in their L1 untouched on by the other two groups.

6.2.2 Implications for L2 learners

L2 learners themselves should become open to the use of their L1 throughout the L2 learning process, particularly those learners from Japan who are accustomed to the Japanese Government’s MEXT (2002) Action Plan to Cultivate ‘Japanese with English Abilities’. Use of the L1 not only provides learners with benefits such as deeper comprehension (see Cook, 2001), an understanding of the finer nuances of the L2 (see Hashim & Seng, 2006), a platform to begin learning an L2 (see Hawras, 1996), a means of easing learners’ stress levels and providing self-reassurance (see Phakiti, 2006), a base for looking up unknown words (see Paribakht, 2005) and for thinking of new ideas (see Macaro, 2005), but also, as demonstrated throughout the present study, an aid for L2 reading comprehension through collaborative group discussions.

Of course, that is not to say that absolute use of the L1 without any use of the L2 would benefit a learners’ L2 proficiency level. In fact, the use of the L1 may not necessarily have a direct impact on L2 production in the short-term, but what it can do is provide learners with the courage and reassurance that enables them to begin producing L2 output. Much like L2 teachers, L2 learners must discover how and when to make use of their L1 effectively so that it facilitates L2 learning rather than hindering it. For example, if L2 teachers begin to include more activities in which the L1 can be used inside the classroom (e.g. group discussions), L2 learners must work out how to effectively utilise the L1 outside of the classroom, for example: taking L1 notes whilst reading in the L2, compiling ideas in the L1 before writing in the L2, and using the L1 to look up unknown L2 vocabulary items, etc. If learners are encouraged to use their L1 effectively, it may be that their ability to produce various L2 elements with confidence may also increase.

6.3 Limitations and possibilities for future research

The present study utilised learners’ written recalls and responses of the texts to assess their levels of textual comprehension, however this in itself is a limitation. Researchers (see for example Delayney, 2008) have found that writing about a text can facilitate comprehension and it may be that providing written responses on the four texts in this study affected the participants’ comprehension of the texts. It could therefore be concluded that their comprehension of the four texts may not only be the product of one-time reading and group discussions (in the cases of groups
2 and 3), but may also have been enhanced by their post-reading written recalls and responses. However, verbal protocols also influence comprehension, thus there may be few ways around this if one wants a body of data to investigate qualitatively. Even questions to gauge textual comprehension can affect comprehension itself (Fuchs, Fuchs, & Maxwell, 1988). The fact that all three groups in the present study used written recalls/responses at least reduces this as a variable.

The present study dealt with participants’ text recalls and response comments together in the evaluation of their comprehension for each text. Future research may look at separating the recalls from the response comments to determine whether they produce different sets of information about the L2 readers’ comprehension strategies.

The present study offered participants no opportunity in which to re-read the texts; an important skill in the evaluation of their own reading comprehension (Sweetnam Evans, 2011). Re-reading is a corrective action (Pressley & Afflerbach, 1995) that allows learners to amend misinferences and miscomprehensions after the initial reading of the text, and includes benefits such as enhanced textual processing and overall textual comprehension (Raney et al., 2000). It might be the case that, had participants in this study been allowed to re-read texts, perhaps following their group discussions, they might have developed a greater comprehension of the texts overall. Future research might provide learners with opportunities to re-read each text following their group discussion, before completing their written recalls and responses.

The role of orthography on L1-L2 reading interactions was not investigated as a variable in the present study although it is acknowledged that it is possible that the differences in bottom-up processes used in alphabetic and logographic writing systems may have had an effect on the way in which participants read and comprehended the texts. However, all the students were Japanese first language speakers, and they all had similar levels of competence (and one can assume competence in reading) in English (they were all university undergraduates who had passed the IELTS at the level required for study at the University of Otago), so that the difference in writing systems would not necessarily have been a significant variable.

Finally, the present study used a very small number of participants. Also, the same participants were used in the same groups for the duration of the study, dealing with each of the texts in the same way. Broad conclusions cannot be drawn as a result. Future research may conduct a similar study on a
larger scale to determine more generalisable results. Future studies might also have participants with different proficiency levels to determine the extent to which proficiency plays a role in the use of the L1 in activities such as group discussions. Having learners alternate groups and the way in which they interact with texts may also help to do away with the limitation of having the same learners interact with the texts in the same manner. Nevertheless, the present study does provide some interesting findings into the benefits of L1 group discussions on L2 reading comprehension, and suggests a positive correlation between L1 group discussions and successful L2 reading comprehension.
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APPENDICES
APPENDIX 1
INFORMATION SHEET FOR PARTICIPANTS

THE EFFECTS OF L1 AND L2 GROUP DISCUSSIONS ON L2 READING COMPREHENSION

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you of any kind and we thank you for considering our request.

What is the aim of this study?
This project is being undertaken as part of the requirements for the Master of Arts in Linguistics. The aim of this study is to determine the effects of L1 and L2 group discussions on reading comprehension for learners of English as a Second Language (ESL), and the way in which these can be implemented in the L2 classroom to aid in L2 reading comprehension.

What kind of participants are we looking for?
There will be 3 groups of participants in this study. All participants will be Japanese undergraduate students from the University of Otago with similar ESL proficiency levels and an approximately even mix of males and females. Participants will be contacted by the researcher through language departments at the university.

What will you be asked to do?
Should you agree to take part in this project, you will be asked to read four English texts and respond to them in one of three ways depending on which group you are placed in: 1.) on your own without group discussion, 2.) after a group discussion in your L2, or 3.) after a group discussion in your L1. You will then be required to provide undirected responses concerning your comprehension of the text by giving summaries, opinions and comments of each text. You will also be given a short questionnaire asking about your personal perspectives on the use of the L1 in the L2 classroom.

Please be aware that you may decide not to take part in the project without any disadvantage to yourself of any kind. You may also withdraw from participation in the project at any time and without any disadvantage to yourself of any kind.

What kind of data will be collected?
Data that evaluates your reading comprehension will be collected through means of written recalls post-reading, which will be analysed by the student researcher, Blake Turnbull. Classroom group discussions will be audio-recorded so that we can type up transcripts later. Only Blake Turnbull and Moyra Sweetnam Evans (instructor investigator) will have access to, and see, the raw data that we will collect. Your name will never be revealed to anyone else.

The results of the project may be published and will be available in the library but every attempt will be made to preserve your anonymity. You are most welcome to request a copy of
the results of the project should you wish. The data collected will be securely stored in such a way that only those mentioned above will be able to gain access to it. At the end of the project any personal information will be destroyed immediately except that, as required by the university's research policy, any raw data on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed. Reasonable precautions will be taken to protect and destroy data gathered by email. However, the security of electronically-transmitted information cannot be guaranteed. Caution is advised in the electronic transmission of sensitive material.

What if I have any questions?

If you have any questions about our project, either now or in the future, please feel free to contact either:

Blake Turnbull or Moyra Sweetnam Evans
Department of English and Linguistics Department of English and Linguistics
Phone number: 0273517940 University Telephone Number: 479 8614
Email: blaketurnbull@hotmail.com

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
APPENDIX 2
CONSENT FORM FOR PARTICIPANTS

THE EFFECTS OF L1 AND L2 GROUP DISCUSSIONS ON L2 READING COMPREHENSION

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know and accept that:-

1. my participation in the project is entirely voluntary;

2. I am free to withdraw from the project at any time without any disadvantage;

3. The data (audio-tapes) will be destroyed at the conclusion of the project but any other raw data e.g. written recalls, on which the results of the project depend will be retained in secure storage for five years, after which it will be destroyed;

4. The results of the project may be published and available in the library but every attempt will be made to preserve my anonymity.

5. I understand that reasonable precautions have been taken to protect data transmitted by email but that the security of the information cannot be guaranteed.

I agree to take part in this project.

........................................................................................................ ...............................
(Signature of participant) (Date)

This study has been approved by the University of Otago Human Ethics Committee. If you have any concerns about the ethical conduct of the research you may contact the Committee through the Human Ethics Committee Administrator (ph 03 479 8256). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
APPENDIX 3

TASK INSTRUCTIONS FOR PARTICIPANTS

Group 1:

- You are to read the following four texts by yourself. You may read at your own pace and take as much time as you need. You are welcome to use a dictionary if you need it. You may also wish to underline parts you do not understand for later reference.
- When you have finished each text you will be given a response sheet. Please write down what you remember about the text, and any comments/opinions you may have.
- You will also be given a questionnaire based on your opinions towards using the L1 with the L2.
- You may respond to all written questions in either English or Japanese.

Groups 2 and 3:

- You are to read the following four texts by yourself. You may read at your own pace and take as much time as you need. You are welcome to use a dictionary if you need it. You may also wish to underline parts you do not understand for later reference.
- When you have finished each text, you will discuss them as a group in English/Japanese only. Following that, you will be given a response sheet. Please write down what you remember about the text, and any comments/opinions you may have.
- Finally, you will be given a questionnaire based on your opinions towards using the L1 with the L2.
- You may respond to all written questions in either English or Japanese.
APPENDIX 4

TEXT 1: July


The afternoon is dark and not with rain.

Intent on conquest, the sun presses its attack

Harder as the blunt day closes in.

Swallows like knives carve at the thickening air.

I swab the sweat from my blistering hide and walk

Burnt, unblessed, my brain inert as alum.

I stagger beneath the weight of the day

Like a three-legged dog howling curses at the climate

Until, defeated by the weather's bludgeon,

I lift my hands to half a god

And stammer out a portion of a prayer.
APPENDIX 5

TEXT 2: Little Red Riding Hood (based on James Finn Garner’s version)


There was once a young person named Red Riding Hood who lived with her mother on the edge of a large forest. One day her mother asked her to take a basket of fresh fruit to her grandmothers house - not because this was a woman’s job, but because it was a nice gesture and encouraged a sense of community. Furthermore, her grandmother was not sick, but rather was in perfect physical and mental health, and could take care of herself as a mature adult.

So Red Riding Hood set off with her basket through the woods. Many people believed that the forest was a dangerous place and that it should not be entered. Red Riding Hood, however, was confident enough in herself that such thoughts did not intimidate her.

On her way to Grandma’s house, Red Riding Hood was approached by a wolf, who asked her what was in her basket. She replied “some healthy snacks for my grandmother, who is certainly capable of taking care of herself as a mature adult”.

The wolf said, “It isn’t safe for a little girl to walk through these woods alone”.

Red Riding Hood said, “I find your sexist remark offensive, and I will ignore it because of your traditional status as an outcast from society which has caused you to develop your own negative worldview. Now, if you’ll excuse me, I must be on my way”.

Red Riding Hood walked on along the main path. But because his outsider-status had freed him from following the rules, the wolf knew a quicker route to Grandma’s house. He burst into the house and ate Grandma, which was entirely valid for a carnivore like himself. Then, he put on Grandma’s clothes and got into bed, not bothered by the woman’s clothing or traditional rules of what is masculine and what is feminine.

Red Riding Hood entered the cottage and said, “Grandma, I’ve brought you some fruit”.

From the bed, the wolf said softly, “Come closer, child, so that I might see you”.

Red Riding Hood said, “I forgot you have bad eyesight. What big eyes you have”!

“They have seen much, and forgiven much, my dear”.

“Grandma, what a big nose you have- but still attractive in its own way”.

“It has smelled much, and forgiven much, my dear”.

“Grandma, what big teeth you have”!

The wolf said, “I am happy with who I am and what I am”, and leaped out of bed. He grabbed Red Riding Hood in his claws, planning to eat her. Red Riding Hood screamed, not because the wolf liked to dress in woman’s clothing, but because of his invasion of her personal space.

Her screams were heard by a passing wood-cutter. When he burst into the cottage, he saw the fight and tried to intervene. But as he raised his axe, Red Riding Hood and the wolf both stopped.

“And just what do you think you’re doing”? asked Red Riding Hood.

The wood-cutter blinked and tried to answer, but no words came out.

“Bursting in here like that, swinging your weapon like a crazy person”? She exclaimed.

“Sexist! How dare you assume that women and wolves can’t solve their own problems without a man’s help”!

When she heard Red Riding Hood’s passionate speech, Grandma jumped out of the wolf’s mouth, grabbed the wood-cutters axe and cut his head off. After that, Red Riding Hood, Grandma, and the wolf felt a certain bond between one another. They decided to set up an alternative household based on mutual respect and cooperation, and they lived together in the woods happily ever after.
A customer ordered some coffee in a café. The waiter arrived with the coffee and placed it on the table. After a few moments, the customer called for the waiter.

'Waiter,' he said. 'There's dirt in my coffee!' 

'That's not surprising, Sir,' replied the waiter. 'It was ground only half-an-hour ago.'
APPENDIX 7

TEXT 4:

Bug Bites

Two tarantulas, please. At a restaurant in Cambodia, Sok Khun samples deep-fried spiders. “This is a very normal food to eat,” Khun says.

Have you heard the one about the customer who finds a fly in his soup?
Outraged, he points it out to the waiter, who says, “Keep your voice down, or everybody’ll want one!”
OK, so it’s an old joke.
But the funny part is what the waiter says. Who on earth would want to eat a bug?

Well, would it surprise you if we said lots of people would? It’s true. In Australia, South America, Africa, and Asia, eating bugs is no joke. Bugs aren’t just pests. They’re lunch or dinner or a nice after-school snack.

To those of us who’ve never crunch a cricket or slurped a worm, the idea of eating bugs sounds pretty gross. We wouldn’t eat those creepy-crawlies even if someone dared us! Yet lots of bugs are nutritious, tasty, and perfectly safe to eat.

Eat Up! We’re Outnumbered

Eating bugs is an old habit. Ten thousand years ago, before they learned to farm, our ancestors found food by hunting and gathering. Bugs were considered part of the daily diet. It made sense for ancient people to eat a source of nutrition that was right under their noses—or buzzing by their ears.

As you’ve probably noticed, bugs are everywhere. One out of every three animals is a bug, and scientists estimate that there are 200 million of the little critters for every person on the planet. No wonder more than half the people on earth still eat bugs daily. Of the million or so types of bug that scientists have named so far, more than 1,500 are somebody’s favorite snack.

The most popular bugs to eat are crickets and termites, which are said to taste a bit like pineapple, but lots of other bugs are edible, too. Restaurants in Mexico sell ant tacos. Cans of baby bees line supermarket shelves in Japan. In Thailand, outdoor markets offer silkworm larvae. And in Mozambique, in eastern Africa, people call grasshoppers “flying shrimp.”
Fun Fact: Moviegoers in Colombia eat roasted ants instead of popcorn.

Bugs Do a Body Good

Dinner is served: on one plate, a big, juicy hamburger, and on the other, a heaping pile of cooked grasshoppers. Ground beef or bugs? Which one do you think is better for your body?

Both have lots of protein, which is what your body uses to build muscle. But in other ways, grasshoppers clearly come out ahead. A pound of grasshoppers has less fat than a pound of beef, and the insects are higher in calcium and iron. Other bugs are good for you, too. Says biologist David George Gordon, author of the Eat-a-Bug Cookbook, “I tell kids, if your bones are still growing, eat more crickets and termites.”

One scoop or two? Prossy Kasule sells dried grasshoppers at Nakasero Market in Uganda, a country in Africa. If grasshoppers don’t make you jump for joy, stop in two stalls down for a bag of termites.

Not only are grasshoppers better for you than beef, they’re also better for the planet. It takes a lot of grass and water and space to raise a cow. Imagine how many grasshoppers you could raise on the same amount of land!

Still wouldn’t pick the grasshoppers? Gordon says they also taste delicious, a lot like green peppers.

A Matter of Taste

In North America and Europe, the idea of eating bugs is downright disgusting to most people. But even though we don’t think of crickets and termites as food, lots of things we do eat are bug-related. Honey is made by bees. Shrimp, crayfish, crabs, and lobsters are all arthropods, which is what scientists call the bug group of animals. In fact, lobsters have only recently made the
transition from bug to edible treat. The first American colonists ate lobsters only when they didn’t have anything else. In Massachusetts, servants who were tired of getting the “cockroaches of the sea” for dinner wrote into their contracts that they’d eat lobster only three times a week.

Other parts of the world also have forbidden foods. Lots of people would never eat lobsters and the other sea-dwelling “bugs” we consider delicacies. Many people don’t eat pork. Even among people who eat insects, tastes differ. South Africans might munch termites for lunch, but they’d never eat scorpions, which are raised for food in China. In Bali, Indonesia, dragonflies are a treat, but in the Indonesian province of Irian Jaya, no one would think of eating a dragonfly. Cicadas are on the menu instead.

So when it comes to eating, people mostly stick with food they’re used to. What’s food and what’s not is a matter of taste—and what you’ve been taught.

**Future Food**

Could our tastes change? Could school lunches ever include grasshopper kabobs and caterpillar fritters?

Attitudes about bugs are already changing. Thanks to bug-appreciation programs at schools and science centers, kids today are less squeamish about insects. If we can get over the “Gross!” factor, bugs could one day become part of our daily diet. Bugs are even considered a perfect food for long space journeys, because astronauts could breed them in outer space.

Still wondering who on earth would want to eat a bug? Better to ask, who wouldn’t?

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*Gotcha!* On the island of Bali, kids catch dragonflies on long poles rubbed with sticky sap. This expert hunter (top) has skewered the day’s catch on a strip of palm. Silly hats and ant casserole (right) are on the menu at the Roasted Goose restaurant in Kunming, China.
APPENDIX 8
TEXT RESPONSE SHEET

Please write what you remember about the text.
このテキストについて覚えている事を書いて下さい。

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide any comments, opinions, impressions, and insights into the text.
このテキストに対しての意見、印象、見識、コメントなどを書いて下さい。

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
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APPENDIX 9

PERSPECTIVE RESPONSE QUESTIONNAIRE

1.) What is your opinion on using the L2 in the L2?
第二言語を学ぶ時に母語を使うのはどう思いますか。

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

2.) Do you personally like using the L1 in the L2 learning process?
第二言語を学ぶ時に母語を使うのが好きですか。

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3.) Do you think using the L1 in the L2 is beneficial to learning the language?
母語を使うのは第二言語を学ぶために役立つと思いますか。

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4.) When do you find using the L1 is the most helpful in your own L2 learning?
第二言語を学ぶ時、いつ母語を使う方が役立つと思いますか。

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
5.) When do you find it the least helpful?
いつ役に立たないと思いますか。

6.) Would you rather receive instruction in the L1 or L2 for learning tasks? Why is this?
第二言語を教える時には、母語か第二言語どちらで教わりたいですか。なぜですか。

7.) When studying by yourself, do you use the L1 to aid your comprehension? If so, when?
第二言語を自習する時、理解を深める為によく母語を利用しますか。

8.) Would you rather discuss texts in the L1 or L2 to deepen your comprehension?
語解を深めるために、母語か第二言語どちらで話し合う方が好きですか。
9.) On a scale of 1-5 (1= not at all, 5= very), how important do you think using the L1 is in practicing L2:
次の第二言語の分野を学習する時に、母語を使うのはどれほど大切だと思いますか。なぜそう思うのかコメントしてください。（1＝全然大切ではない、5＝とても大切）

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10.) Which text(s) did you find difficult? Which text(s) did you find easy? (You may choose more than 1)
4つの内、どのテキストが難しかったと思いますか。どれが簡単думалと思いましたか。（複数選択可）そして、それはなぜですか。

11.) How did you find the group discussions? Were they helpful? Please comment.
グループでのディスカッションはどう思いましたか。役に立ちましたか。コメントして下さい。